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PARTIAL RESPONSE ACTION OUTCOME (RAO) STATEMENT (RTN 3-23606)
RAO STATMENT (RTN 3-28545 + RTN 3-28546)
RAM COMPLETION REPORT (RTN 3-23606)
IRA COMPLETION REPORTS (RTNs 3-28545 + 3-28546)

515 Somerville Avenue
Somerville, Massachusetts 02143-3238

Release Tracking Number (RTN) 3-23606
RTN 3-28545
RTN 3-28546
ACOP-NE-09-3E009

Party Assuming Responsibility for the IRA:

World 115 Nominee Trust
P.O. Box 95025
Newton, MA 02495
Attn.: Mr. Mark Coppola, Trustee

Licensed Site Professional (LSP) for the RAO:

Ms Marcia J. Berger, LSP #4667
Clean Properties, Inc.
111 Boston Post Road
Suite 211
Sudbury, MA 01776

July 1, 2011

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Clean Properties Inc.
Environmental Assessment & Cleanup

111 Boston Post Road, Suite 211
Sudbury, MA 01776
Phone: 978-443-6622
Fax: 781-577-1510
Email: Public@CleanProperties.com

July 1, 2011

Massachusetts Department of Environmental Protection
Northeast Regional Office
205B Lowell Street
Wilmington, MA 01887

Re: Partial Response Action Outcome (RAO) Statement Report for
Release Tracking Number (RTN) 3-23606
and
Response Action Outcome (RAO) Statement Reports for
RTNs 3-28545 + 3-28546
and
Release Abatement Measure (RAM) Completion Statement for
RTN 3-23606
and
Immediate Response Action (IRA) Completion Statements for
RTNs 3-28545 + 3-28546

515 Somerville Avenue, Somerville, MA

To Whom It May Concern:

Clean Properties, Inc., has prepared this Partial Response Action Outcome (RAO) Statement for the above-referenced release site identified by RTN 3-23606 (Site) and RAO Statements for encompassed RTN 3-28545 and RTN 3-28546 on behalf of World 115 Nominee Trust (the property owner) in accordance with the provisions of the Massachusetts Contingency Plan (MCP), 310 CMR 40.0000, and Administrative Consent Order ACOP-NE-09-3E009. Completion Statements also are included for Immediate Response Actions (IRAs) for RTN 3-28545 and RTN 3-28546 and for the Release Abatement Measure (RAM) for RTN 3-32606.

The RAO Transmittal Form (BWSC-104), RAM Transmittal Form (BWSC-106), and IRA Transmittal Form (BWSC-105), and this report were submitted electronically through eDEP.

1.0 — INTRODUCTION

The Site identified by RTN 3-23606 corresponds to the entire Property at 515 Somerville Avenue, located on the northwest corner of the intersection of Somerville Avenue and Laurel Street in the City of Somerville, as shown on the Locus Map (***Figure 1***). The release Sites identified by RTN 3-28545 and RTN 3-28546 are located in the northwestern portion of the Property, as shown on the Site Plan (***Figure 2***). No sensitive resources are located on the Property or adjoining properties, as indicated by the MassGIS Bureau of Waste Site Cleanup (BWSC) Priority Resources Map (***Figure 3***).

RTN 3-23606 identifies the presence of elevated Petroleum Hydrocarbons, Polynuclear Aromatic Hydrocarbons (PAHs), and metals in soil and groundwater across the entire Property, as reported on February 13, 2004, and continuing in Phase IV. The release site also encompasses an area that was determined to contain asbestos-containing floor tile in near-surface soil from past demolition activities. The release site was classified Tier II in a February 17, 2005, Phase I Initial Site Investigation (ISI) Report and Tier Classification Submittal prepared by Rizzo Associates on behalf of previous property owner John Solomon International. A RAM Plan for the release was submitted to the MassDEP in October 2007 and was last modified in May 2009 by Sanborn Head & Associates on behalf of World 115 Realty Trust. RAM Status Reports relative to the RAM Plan were submitted to the MassDEP in September 2009, February 2010, August 2010, and February 2011. Phase II Comprehensive Site Assessment (CSA) and Phase III Remedial Action Plan (RAP) Reports for this site were submitted to the MassDEP on May 1, 2010, by Action Environmental Boston on behalf of World 115 Nominee Trust; and a Phase IV Remedial Implementation Plan (RIP) was submitted on July 1, 2010. A June 3, 2011, RAO was submitted for RTN 3-28548 that also served as a partial RAO for RTN 3-23606, covering the spatial area of RTN 3-28548 as identified within the Property and encompassing site RTN 3-23606 (***Figure 2***). This report serves as an RAO for the remainder of the Property identified by RTN 3-23606 and encompassed RTNs 3-28545 and 3-28546, exclusive of a small area of the northwestern quadrant of the Property that contains asbestos in soil relative to which response action completion has not been fully documented. This report also serves as a RAM Completion Statement for RTN 3-23606 and IRA Completion Statements for RTNs 3-28545 and 3-28546.

RTN 3-28545 identifies the release of approximately 20 gallons of suspected hydraulic oil spilled from a previously unknown 100-gallon UST that was encountered during excavations for RTN 3-23606 — constituting a 2-hour reporting condition that was reported on June 9, 2009. The UST was removed and disposed appropriately. The release occurred north of the UST beds that are the subject of this RAO Report, encompassing urban soils also identified as containing visible bulk materials containing asbestos. An IRA Plan for response actions required to address this release was submitted to the MassDEP on September 3, 2009; and IRA Status Reports were submitted to the MassDEP in December 2009, July 2010, and January 2011. A Phase I ISI Report and Tier Classification submittal was filed with the MassDEP for the site on June 9, 2010, with the site classified Tier II based on a Numerical Ranking Score (NRS) of 176.

RTN 3-28546 identifies the release of Stoddard Solvent identified on June 9, 2009, by the measurement of a PID Jar Headspace reading greater than 100 ppmv associated with soil near the UST at the time of its removal — constituting a 72-hour reporting condition. An IRA Plan for response actions required to address this condition was submitted to the MassDEP on September 3, 2009. Liquid UST contents were removed by a pump truck and disposed off-site at a commercial vendor. Sludge in the UST was transferred to a roll-off dumpster and subsequently disposed at General Chemical Corporation of Framingham, Massachusetts. The USTs were cleaned and disposed at a State-licensed tank yard, with drummed cleaning wastes and personal protection equipment (PPE) subsequently disposed at General Chemical Corp. IRA Status Reports were submitted in December 2009, July 2010, and January 2011. A Phase I ISI Report and Tier Classification submittal was filed with the MassDEP relative to the site on June 9, 2010, with the site classified Tier II based on a NRS of 131.

Two (2) additional closed release sites are identified as associated with the Property:

> RTN 3-04350 identifies the presence of elevated Petroleum Hydrocarbons, Lead, and PAHs in soil and the presence of Petroleum Hydrocarbons and several Volatile Organic Compounds (VOCs) including tetrachloroethene in groundwater near the former John Solomon International loading dock, drive, and west storage yard. The contaminant conditions were identified during a June 1990 due diligence assessment that targeted the former location of a 1,000-gallon underground gasoline storage tank. In July 1993, a total of 77.86 tons of Petroleum-impacted soil was excavated from the west storage yard to deepen the loading dock and recycled at an off-site asphalt-batching facility. Based on a Method 3 Risk Characterization, Rizzo Associates submitted a Class A-2 Response Action Outcome (RAO) Statement relative to the release on November 14, 1995, on behalf of then property owner John Solomon International. The 1,000-gallon tank was closed in-place with concrete fill prior to 1992 and was removed on June 9, 2009. Closure conditions associated with this site apply to some of the contaminant conditions identified associated with overlapping release sites RTN 3-23606, 3-28545, and 3-28546.
>
> RTN 3-28548 identifies the potential release or threat of release that was reported on June 9, 2009, when two 1,000-gallon previously closed-in-place gasoline underground storage tanks (USTs) being removed from the southern portion of the Property were opened and allowed to remain uncontrolled over night — constituting a 2-hour reporting condition. An IRA Plan for response actions required to address this condition was submitted to the MassDEP on September 3, 2009. IRA Status Reports were submitted on December 31, 2009; June 29, 2010; and January 3, 2011, with an IRA Completion Report submitted February 24, 2011. A Class A-2 RAO Statement relative to the release was submitted on June 3, 2011, on behalf of property owner World 115 Nominee Trust. That RAO also served as a Partial RAO for RTN 3-23606 that is the subject of this current submittal.

2.0 — CONTACT INFORMATION

At the time of release notification on February 13, 2004, the Property encompassing the Site was owned by Somerville Apparel International, Inc. (formerly known as John Solomon International, Inc.). Response actions through February 17, 2005, Phase I Initial Site Investigation and Tier Classification were prepared by Rizzo Associates on behalf of that Potentially Responsible Party (PRP), classifying the Site as Tier II (low priority).

On May 7, 2007, World 115 Nominee Trust, with Mark D. Coppola as Trustee, purchased the Property from Somerville Apparel International. A Tier 2 Transfer was submitted on May 22, 2007, by Sanborn, Head & Associates, Inc., on behalf of World 115 Nominee Trust, transferring MCP obligations from Somerville Apparel International to World Realty & Development, Ltd., the operating company of the new owners pending legal registration of the Nominee Trust. LSP oversight was assumed by Duncan Wood of Sanborn, Head & Associates, Inc. A new Tier II Transfer Submittal for the Site identifying World 115 Nominee Trust as the PRP was submitted effective October 18, 2009. World 115 Nominee Trust transferred response action oversight to Action Environmental Boston on December 28, 2009, with Glenn A. Carlson as LSP. World 115 Nominee Trust transferred response action oversight to Clean Properties on May 10, 2011, with Marcia J. Berger as LSP.

This RAO is being undertaken by the current Property Owner:

World 115 Nominee Trust
P.O. Box 95025
Newton, MA 02495
% Mr. Mark Coppola, Trustee
617-969-4154

This RAO is being overseen by Clean Properties Licensed Site Professional (LSP):

Marcia J. Berger, LSP #4667
Clean Properties, Inc.
111 Boston Post Road, Suite 211
Sudbury, MA 01776
Phone: 978-443-6622

3.0 — SITE DESCRIPTION

The Property encompassing the Sites of RTNs 3-23606, 3-28545, and 3-28546 is located on 1985 U.S. Geological Survey (USGS) 7.5x15-minute Boston North, Massachusetts, metric topographic Quadrangle 42071-D1-TM-025 (***Figure 1***). The Property is identified in City of Somerville Assessors Office files as 46,852-square-foot (1.0755-acre) Parcel 52/H/38//, assigned an address of 515 Somerville Avenue (a primary thoroughfare in the City). The Property has 229.59 feet of frontage on the north side of the Avenue, 149.45 feet of frontage on the west side of Laurel Street, and extends within 118.5 feet of Central Street on the west with a right-of-access from that Street across a west-adjoining parcel at 7 Central Street (***Figure 2***). The Property currently is vacant and undeveloped, except for part of an approximately 1,230-square-foot warehouse building (unoccupied and awaiting replacement of portions of its exterior walls) on the north side of the Property's northwest quadrant and an adjoining approximately 4,000-square-foot concrete pad that formerly was a building slab. The north and west sides of the concrete pad consist of 10- to 20-foot high concrete retaining walls that hold back the developed surfaces of adjoining residential and commercial parcels.

Historically, the central portion of the Subject Property was developed with an approximately 25,775-square-foot single-story masonry industrial building, the core of which was constructed in about 1924 (***Figure 2***). Until demolition of nearly all of the building in 2009, the industrial building was used as an automotive garage (1924-1950), a uniform supply and cleaning company (1950-1972), and a textile cutting and seaming company (1972-2002). The western portion of the building was added in 1972 for apparel manufacture. The loading dock for that portion of the building was redeveloped in 1993, when a garage also was added to the northwestern corner of the building; and the east parking lot was constructed on former residential lots along Laurel Street. Known chemical uses associated with these activities at the Property consist of petroleum-based motor-vehicle fluids and presumably their solvents, fuel oils (#2 and #4 fuel oil), and Stoddard Solvent[1] (for uniform cleaning).

The Property currently is proposed for redevelopment for commercial purposes, consistent with most nearby other properties along Somerville Avenue. The proposed 4-story building will front on Somerville Avenue and Laurel Street (***Figure 2***), with retail and/or business services on the first floor, general and medical offices on the second floor, and management and general offices and possible residential units splitting the third and fourth floors (***Figure 5***).

The Property occupies the southeastern toe of the Spring Hill drumlin, which is oriented northwest/southeasterly, consistent with southeasterly movement of the depositing glacier approximately 12,000 years ago. The drumlin crests at an elevation of 132 feet (40 meters) above mean sea level approximately 2,070 feet northwest of the Subject Property. Ground surfaces on the Property generally slope gently southeasterly off the drumlin, with the northwestern corner of the Property at an elevation of approximately 21 feet (6.5 meters) and the southern boundary of the Property at an elevation of approximately 15 feet (4.5 meters), 1-2 feet below the grade of the south-bounding municipal sidewalk along Somerville Avenue.

The Site identified by RTN 3-23606 encompasses the entire Property at 515 Somerville Avenue on the north side of the street between Laurel Street on the east and Central Street on the west, exclusive of an area where asbestos remains in soil in the northwestern quadrant of the Property (***Figure 2***). The approximate center of the Site identified by RTN 3-23606 is located at:

---

[1] Stoddard solvent, also known as white mineral spirits, is a petroleum distillate that is clear, free from suspended matter and undissolved water, and absent rancid or otherwise objectionable odor. The solvent was developed in 1924 by Atlanta dry cleaner W.J. Stoddard in conjunction with Lloyd E. Jackson of the Mellon Research Institute as an alternative to volatile (odiferous) petroleum solvents available at the time. Stoddard solvent was the predominant dry cleaning solvent used in the United States from the late 1920s until the late 1950s. Currently, white mineral spirits are used principally as low-odor paint solvents. The solvent consists principally of saturated aliphatic and alicyclic C_7-C_{12} hydrocarbons — best corresponding to the Volatile Petroleum Hydrocarbon (VPH) C_9-C_{12} Aliphatic Hydrocarbon fraction and the Extractable Petroleum Hydrocarbon (EPH) C_9-C_{18} Aliphatic Hydrocarbon fraction.

Latitude: 42° 23' 00.20" North
Longitude: 71° 06' 20.49" West

UTM: 4,694,482 meters North
190,326,618 meters East

The Site identified by RTN 3-28545 is located on the south side of the remnant former building slab in the northwestern quadrant of the Property (***Figure 2***). The approximate center of the Site identified by RTN 3-28545 is located at:

Latitude: 42°23'00.97" North
Longitude: 71°06'21.35" West

UTM: 4,694,507 meters North
190,326,600 meters East

The Site identified by RTN 3-28546 is located in the northwestern quadrant of the Property (***Figure 2***). The approximate center of the Site identified by RTN 3-28546 is located at:

Latitude: 42°23'00.80" North
Longitude: 71°06'21.48: West

UTM: 4,694,501 meters North
190,326,595 meters East

3.1 — Site Conditions

The majority of the Site of RTN 3-23606 (corresponding to the Property), including all of encompassed RTNs 3-28545 and 3-28546, consists of sparsely vegetated sandy soil exposed following the removal of the former building and associated pavement in 2009 (***Figure 2***). The only existing soil cover at the Site consists of an approximately 4,000-square-foot concrete pad in the northwestern-most portion of the Property that formerly was a building slab and an east-bounding approximately 1,230-square-foot warehouse building (unoccupied and awaiting replacement of portions of its exterior walls). The excluded area of asbestos-containing soil is bounded by remnant concrete foundation walls in that area, encompassing approximately 1,200 square feet covered with clean soil. The Property encompassing the Site is enclosed within a six-foot high chain-link fence fitted with mesh privacy screening. Current access to the Property is available only through the locked gate via the right-of-way drive from Central Street.

3.2 — General Historic Use of the Site

The former building at 515 Somerville Avenue was used as an automotive garage from its construction in 1933 until 1950. During that timeframe, Sanborn Company Fire Insurance Maps indicate that underground gasoline storage tanks were operated along the Avenue. From 1950 until 1972, a uniform supply and cleaning company occupied the building. During the uniform company's tenancy, underground fuel-oil, Stoddard solvent, and gasoline storage tanks operated in the loading dock area on the west side of the central portion of the building. A complex drainage system was installed beneath the building to distribute and process laundry water. Residences along Laurel Street were demolished and their parcels converted into a parking lot on the east side of the building. From 1972 until 2002, the building was occupied by Somerville Apparel International (aka John Solomon International), a textile cutting and seaming company. Somerville Apparel International discontinued use of many of the underground storage tanks.

The Property was sold to World 115 Nominee Trust on May 7, 2007. The building was demolished, pavement removed, and underground storage tanks removed in 2009 — thereby eliminating potential sources for contaminant release.

3.3 — Surrounding Receptors

The Property encompassing the Site currently is vacant. Maintenance workers for World 115 Nominee Trust periodically visit the Property to remove weed growth, maintain fencing and screening, and otherwise control Site conditions. Similarly, environmental contractors periodically visit the Property to conduct ongoing inspections. Although the Property is secured by locked fencing, the occurrence of periodic new graffiti attests to trespass by neighborhood youths.

Based on the 2007 City Census, approximately 14,252 people reside within 0.50 mile of the Site. Adjoining and nearby properties along Somerville Avenue consist principally of retail and other commercial businesses and offices, with the occasional multiple-family residence mixed in — consistent with the "BA" zoning of the area. Adjoining properties to the north and along Laurel Street consist principally of low- to moderate density residences — consistent with the "RB" zoning of the area. The nearest residential properties adjoin the Site on the north.

No institutions, as defined in the MCP, are located within 500 feet of the Site. The closest institution identified on the MassGIS data layers is the Somerville Home (a rest home for the elderly) at 117 Summer Street, approximately 1085 feet north-northeast of the Site.

Natural resources areas in the vicinity of the Site are identified on the MassDEP Priority Resources Map (***Figure 3***). No surface-water features are identified within 500 feet of the Site, the nearest being the Charles River approximately 1.16 miles southwest of the Site. No MassDEP- or National Wetlands Inventory (NWI)-mapped wetlands, Federal Emergency Management Agency (FEMA) floodplains, or Areas of Critical Environmental Concern (ACEC) are identified within 0.25 mile of the Site. No ACECs, Living Waters Core Habitats or Critical Supporting Watersheds or other fish habitat, or Priority Habitats and Estimated Habitats of Rare Species identified by the Massachusetts Natural Heritage and Endangered Species Program (NHESP) are identified within 500 feet of the Site. The Site is not located in a Sole Source Aquifer, groundwater Zone II or an Interim Wellhead Protection Area (IWPA), a surface-water Zone A, or other drinking-water protection district. The Somerville Health Department reported that there are no private drinking-water supply wells in the vicinity of the Site.

Local, State, and/or Federal Protected Open Space in the vicinity of the Site includes the 2.92-acre City of Somerville Conway Playground approximately 260 feet west-southwest of the Site on the south side of Somerville Avenue. Adjoining the Playground on its west side is the 1.70-acre Massachusetts Department of Conservation & Recreation Veterans Memorial Park skating rink, approximately 520 feet west of the Site.

3.4 — Site Hydrogeologic Characteristics

The Site is located on a gently sloping glacial plain that is incised by the Charles River 1.16 miles southwest of the Site and by the Mystic River 1.65 miles northeast of the Site. The plain is adorned with numerous drumlin hills. The Site is located on the southeastern toe of the Spring Hill drumlin, which is oriented northwest/southeasterly. The drumlin crests at an elevation of 132 feet (40 meters) above mean sea level approximately 2070 feet northwest of the Site. The Site slopes gently northwesterly at an average elevation of approximately 16-17 feet, approximately 2-3 feet lower than bordering sidewalks, streets, and developed properties. The drumlin rises moderately steeply north of the Site.

Currently, nearly all of the Site consists of exposed soil, lightly to moderately graveled. An approximately1225-square-foot portion of the building remains on the northern portion of the Site, and an approximately 4500-square-foot concrete slab remains in the northwestern corner of the Site where a parking lot is planned to be developed. Accordingly, most of the Site is conducive to infiltration of stormwater.

Typically, drumlin hills are comprised of unsorted sandy till, whereas the plains on which the drumlins sit are comprised of stratified sand and gravel outwash deposits (Stone, 1982). Based on lithologies encountered in the 50 borings and five (5) test pit that have been performed on-Site, soils at the Site consist principally of 0-6 feet of sandy urban fill containing coal, ash, asphalt, and brick, overlying stratified sand with occasional gravel. A one-foot thick lense of loam that could have been an historic topsoil occasionally was encountered approximately five feet below grade at the bottom of the urban fill horizon.

The depth to bedrock at the Site was not determined. The deepest borings performed on-Site were terminated 20 feet below grade or approximately 22 feet below the former building floor grade.[2] In the vicinity of the glacial channel of the Charles River, the glacial drift may be several hundred feet thick (Weiskel and others, 2005). The nearest bedrock well identified in the MassDEP database was at 75 Oak Street approximately 3,570 feet southeast of the Site, where bedrock was encountered 60 feet below grade.

The bedrock in the area was mapped by Zen (1993) as Cambridge argillite, a Proterozoic-Ƶ to earliest Paleozoic aged eugeosynclinal sedimentary formation consisting of marine mudstone, minor quartzite, and rare dirty sandstone and conglomerate. The formation generally is compact, with slate-like joints usually filled with micaeous and chloritic muck limiting its permeability and aquifer potential; however, its surface may be more fractured and plucked by past glacial movement over its surface.

Depth of groundwater at the Site has ranged from 4.62-12.04 feet below grade between March 2, 2010, and February 4, 2011, with maximum water fluctuation at any one monitoring well being 4.00 feet. Groundwater flow has been determined to be south-southeasterly at a gradient of approximately 0.012 foot per foot (***Figure 7***). Based on the sandy nature of the urban fill and outwash materials within the unconfined aquifer at the Site, the estimated average hydraulic conductivity value of the aquifer material is 1.0×10^{-2} centimeter per second (28 feet/day).[3] The average hydraulic gradient of the water table measured at the Site is 0.012 foot/foot. Assuming a porosity of 0.39, the rate of groundwater flow is 0.131 feet per day or 47.8 feet per year. Because this rate is less than 200 feet per year, a Condition of Substantial Release Migration is not indicated. Based on the MassDEP Priority Resources Map (***Figure 3***), the Site does not overlie a Potentially Productive Aquifer, a Sole-Source Aquifer, an Interim Wellhead Protection Area (IWPA), or a Zone II or other State- or locally designated Water-Protection District. The Somerville Health Department also reported no knowledge of water-supply wells in the vicinity of the Property.

The closest surface-water body to the Site is the Charles River, a northward meander of which extends into Cambridge approximately 1.1 miles southwest of the Subject Property. The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) of the area does not identify floodplains within 500 feet of the Subject Property. The MassDEP Wetlands Map does not identify mapped wetlands within 500 feet of the Subject Property, and the Massachusetts Natural Heritage & Endangered Species Program (NHESP) Habitat Map of the area does not identify any priority or estimated habitat of rare or endangered species within 500 feet of the Subject Property.

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[2] Borings RIZ-1, RIZ-2, RIZ-3, GP-1, GP-3, GP-4, GP-5, and SH-7 (see ***Figure 4***).

[3] Based on data presented in Table 2.2 of Freeze and Cherry (1979).

4.0 — DISPOSAL SITE RELEASE HISTORY

Contamination has been identified at the Site associated with three separate release conditions (***Figure 2***). RTN 3-4350 was associated with soil and groundwater contamination with petroleum hydrocarbons, lead, and VOCs from underground storage tank use in the drive and loading dock area west of the building. RTN 3-23606 encompasses Site-wide contamination with PAHs associated with urban fill conditions at the Site and with petroleum hydrocarbons associated with underground storage tank use at the Site. RTNs 3-28545, 3-28546, and 3-28548 are associated with petroleum hydrocarbon releases and/or threats of release to soil and groundwater identified during underground storage tank removals performed under RTN 3-23606.

4.1 — RTN 3-4350

Contaminant conditions in the western yard were initially identified during a due diligence investigation performed by IES, Inc., in June 1990. IES installed borings in the vicinities of the three known USTs in the west yard. Each of the USTs reportedly was exposed, opened and confirmed to be abandoned and filled with concrete. Soil samples above seven (7) feet below grade collected during these excavations were determined to contain elevated concentrations of TPH, Lead, and PAHs. Groundwater samples were identified as containing detectable concentrations of TPH and several VOCs including Tetrachloroethene in a sample from near the former gasoline UST.

At the request of John Solomon International, Rizzo Associates conducted an expanded subsurface investigation of the Subject Property in the fall of 1992, installing an additional three monitoring wells in the eastern portion of the Property where only low concentrations of VOCs were identified. Elevated concentrations of petroleum hydrocarbons were identified in near-surface soils and groundwater, and low concentrations of VOCs (including chlorinated solvents) were identified in groundwater. John Solomon International reported the release conditions to the MassDEP, which identified the Site as a Location to be Investigated (LTBI) on July 15, 1993 (RTN 3-4350).

In July 1993, Rizzo Associates conducted an Immediate Response Action (IRA) to excavate TPH-contaminated soils from the vicinities of the former USTs. A total of 77.86 tons of impacted soil was transported to an off-site recycling facility for asphalt batching. Based on a Method 3 Risk Characterization, Rizzo Associates determined that remaining contaminant concentrations within the Site of RTN 3-4350 did not pose significant risk to the health of on-site employees, construction workers, and hypothetical future residents. Accordingly, a Class A-2 Response Action Outcome (RAO) Statement was submitted for RTN 3-4350 on November 14, 1995.

In February 2002, Earth Tech performed a due diligence investigation of the Subject Property on behalf of a potential buyer. The investigation included installing three soil borings/monitoring wells within the boundaries of RTN 3-4350 to confirm release conditions. Earth Tech determined that VPH compounds were present in soil and groundwater at the western portion of the Subject Property exceeding Method 1 Risk Criteria. As a result, Earth Tech concluded that the Class A-2 RAO was not applicable to the site and recommended a RAO classification of A-3, which would include an Activity and Use Limitation (AUL). Rizzo Associates reviewed Earth Tech's conclusions and noted that the RAO for the Site of RTN 3-4350 was submitted prior to implementation of VPH/EPH protocols and that the MCP does not require reevaluation of a site that held a RAO prior to that implementation. Rizzo also noted that its RAO was based on a site-specific Method 3 Risk Characterization, whereas Earth Tech employed a non-specific Method 1 Risk Characterization. Rizzo reviewed its Risk Characterization and concluded that the Class A-2 RAO was applicable at the Site of RTN 3-4350.

On behalf of another potential buyer of the Subject Property, Rizzo Associates conducted additional due diligence investigations in November 2002. Because John Solomon International was in the process of vacating the building at the time, building structures that previously had been obscured were identified — including cemented manhole covers, small-diameter access ports, and floor drains. Markings also were observed on the building floor indicating that a geophysical survey had been performed, identifying sub-slab areas of uncertain nature with labels such as "hollow/water" or with arrows. These observations allowed Rizzo to target sub-building investigations of potential releases. Marked areas were explored using a jackhammer to remove the concrete floor slab. Several voids were confirmed to be present beneath the slab that were interpreted to be former laundry wastewater storage chambers that were backfilled with rubble. Six sealed manhole covers were investigated and determined to access a two-foot diameter drainage system, considered to be associated with former laundry operations. Two small access ports also were identified below the carpeting in the southern portion of the building that, when opened, were determined to emit a petroleum-like odor. These access ports were determined to be associated with two gasoline USTs depicted on a 1933 Sanborn Company Fire Insurance Map.

To investigate subsurface soil and groundwater conditions under the building footprint, Rizzo Associates installed five borings/microwells inside the building. Boring locations were selected to be downgradient of identified structures/void areas to evaluate if associated releases had occurred. Soil samples were analyzed for VOCs, VPH, and EPH, with no detectable contaminants identified. Groundwater samples were analyzed similarly, with low concentrations below GW-2 Reportable Concentrations. The highest petroleum hydrocarbon concentration was identified in a groundwater sample from GP-1 under the western portion of the building downgradient from the Stoddard Solvent UST area and near MW-3 and ET-3 in which historically elevated concentrations were identified. GP-1 was identified to contain 1,060 μg/L C_9-C_{12} Aliphatics, which is less than current Method 1 GW-2/3 Risk Criteria. Rizzo concluded that this determination was consistent with the types, nature, and quantities of OHM associated with RTN 3-4350 at the time of its 1995 RAO.

4.2 — RTN 3-23606

In September 2003, Sanborn, Head & Associates, working on behalf of the subsequent buyer of the Subject Property (World 115 Nominee Trust), conducted additional due diligence investigations at the Subject Property, including the installation of seven borings/monitoring wells spaced across the Subject Property. Soil and groundwater samples were analyzed for VOCs by USEPA Method 8260, VPH fractions, EPH fractions and Target PAHs.

Soil collected from boring SH-2, which was installed near the Stoddard solvent UST within the boundaries of RTN 3-4350, was determined to contain 214 mg/Kg VPH C_9-C_{10} Aromatics at the 7-8 foot depth — exceeding the S-1 Reportable Concentration. Rizzo Associates concluded that this concentration was consistent with soil data used in the 1995 RAO, so a new Reportable Condition was not identified. In boring SH-6, EPH C_{11}-C_{22} Aromatics and several PAHs [benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene] were present in urban fill 3-4 feet below grade at concentrations exceeding S-1 Reportable Concentrations. Low concentrations of petroleum hydrocarbons also were detected in one or more urban fill and soil samples collected from other borings; however, all those concentrations were below S-1 Reportable Concentrations.

Groundwater collected from SH-2 and SH-4 was determined to contain EPH C_9-C_{18} Aliphatics exceeding the GW-2 Reportable Concentration. Chromatograms indicated that the petroleum release was consistent with mineral spirits (Stoddard solvent). Trace concentrations of the VOCs chlorobenzene and cis-1,2-dichlorobenzene were detected in groundwater from SH-7 in September 2003. Chlorinated solvents have not subsequently been identified at the site. Groundwater from monitoring wells SH-2, SH-3, SH-4, SH-5, SH-7, GP-1 and ET-3 also contained detectable concentrations of the VPH fractions, also below applicable GW-2 Reportable Concentrations.

Based on these results, John Solomon International notified the MassDEP of the release on February 13, 2004, which the MassDEP assigned RTN 3-23606. Initial response actions were performed by Rizzo Associates on behalf of John Solomon International. The Phase I Initial Site Investigation (ISI) Report and Tier Classification were submitted to the MassDEP on February 17, 2005. Rizzo Associates determined a Numerical Ranking Score of 127, corresponding to Tier II (low priority). The Phase II Comprehensive Site Assessment (CSA) and Phase III Remedial Action Plan (RAP), if appropriate, were not submitted by their due date of February 17, 2007.

On May 27, 2005, Somerville Apparel International received a petition requesting that the Site be designated a Public Involvement Plan (PIP) site under Section 14(a) of Massachusetts General Laws (M.G.L.) Chapter 21E — a designation that was filed with the MassDEP on June 14, 2005. Rizzo Associates filed the supporting PIP on September 26, 2005. The PIP was developed (1) to inform the public about the risks posed by the Site and the status of response actions and (2) to solicit and address the concerns of the public. The PIP also affords interested parties the opportunity to comment on MCP Phase Reports, which may be modified to reflect comments received.

On May 7, 2007, World 115 Nominee Trust, with Mark D. Coppola as Trustee, purchased the Property from Somerville Apparel International. A Tier 2 Transfer was submitted on May 22, 2007, by Sanborn, Head & Associates, Inc., on behalf of World 115 Nominee Trust, transferring MCP obligations from Somerville Apparel International to World Realty & Development, Ltd., the operating company of the new owners pending legal registration of the Nominee Trust.

The MassDEP issued a Notice of Responsibility (NOR) to World Realty & Development, Ltd., on June 14, 2007. Sanborn, Head & Associates, working on behalf of World 115 Nominee Trust, submitted a Release Abatement Measure (RAM) Plan relative to RTN 3-23606 on October 4, 2007. The RAM Plan was broadly developed to address any environmental condition likely to be encountered during demolition and/or re-development, with minimal project disruption. The RAM Plan also encompassed conduct of focused site investigations to identify and manage contaminated soil and groundwater as new areas of the Site were exposed. Soil Management and Health and Safety Plans were incorporated in the RAM Plan.

The Phase IV Remedial Implementation Plan (RIP) that was initially due on February 17, 2008, was not submitted.

The RAM Plan was modified on January 11, 2008, to allow (1) the loading and off-Site disposal of two existing construction debris stockpiles and (2) the potential on-Site reuse of remaining concrete and brick building materials. Following receipt of PIP meeting comments, an Amended Modified RAM Plan was submitted to the MassDEP on March 3, 2008, including increased dust-control procedures. On April 8, 2009, another Modified RAM Plan was submitted to the MassDEP, with its Amended version submitted on April 16, 2009. The Modified RAM Plan incorporated more details on procedures to excavate, segregate, and stockpile impacted soil as it was encountered during continued focused soil and groundwater assessments under the former building. The current Modified RAM Plan was submitted on May 13, 2009. Objectives of this Modified RAM Plan were (1) to remove the then-existing construction debris piles from the Site, (2) to conduct focused investigations beneath the building as segments of it were demolished, and (3) to manage remaining contaminated soil and groundwater during the re-development process. The Modified RAM Plan included a Soil Management Plan for Site activities. The first two objectives were completed and documented in a September 9, 2009, RAM Status Report prepared by Sanborn, Head & Associates.

On August 7, 2009, the MassDEP issued a Notice of Noncompliance (NON) to World 115 Nominee Trust for failure to submit Phase II, III, and IV Reports in accordance to MCP timelines relative to RTN 3-23606. In response to the NON, World 115 Nominee Trust submitted a letter to the MassDEP on September 3, 2009, acknowledging that the response actions had not been timely because of construction delays and requesting MassDEP's approval of a revised schedule for submittal of the outstanding Reports.

The MassDEP issued a Notice of Responsibility to World 115 Nominee Trust on October 5, 2009. A new Tier II Transfer Submittal for the Site identifying World 115 Nominee Trust as the PRP was submitted effective October 18, 2009.

In December 2009, Mark Coppola, as Trustee of World 115 Nominee Trust, entered into an Administrative Consent Order (ACO) with Penalty and Notice of Noncompliance (NON) with the MassDEP — ACOP-NE-09-3E009. The NON cited World 115 Nominee Trust for failure to meet submittal deadlines for Phase II, Phase III, and Phase IV Reports. Penalties were sought for World 115 Nominee Trust's failure to report the releases identified by RTN 3-28545 and 3-28548 within MCP timelines. The ACO set the following deadlines for returning the Site(s) to compliance:

- By January 3, 2010, submit an IRA Status Report (or IRA Completion Report) relative to RTN 3-28545 and additional IRA Status Reports every six months thereafter until an IRA Completion Report is submitted;

- By January 3, 2010, submit an IRA Status Report (or IRA Completion Report) relative to RTN 3-28548 and additional IRA Status Reports every six months thereafter until an IRA Completion Report is submitted;

- By May 1, 2010, submit a Phase II Report and a Phase III Report relative to RTN 3-23606, unless a RAO Statement, Remedy Operation Status Submittal, or Downgradient Property Status Submittal is submitted;

- By June 9, 2010, submit a Phase I Report and Tier Classification Submittal relative to RTN 3-28545, unless a RAO Statement, Remedy Operation Status Submittal, or Downgradient Property Status Submittal is submitted;

- By June 9, 2010, submit a Phase I Report and Tier Classification Submittal relative to RTN 3-28548, unless a RAO Statement, Remedy Operation Status Submittal, or Downgradient Property Status Submittal is submitted;

- By July 1, 2010, submit a Phase IV Report for RTN 3-23606, unless a RAO Statement, Remedy Operation Status Submittal, or Downgradient Property Status Submitted is submitted; and

- By July 1, 2011, submit a RAO Statement or Remedy Operation Status Submittal relative to RTN 3-23606.

On December 30, 2009, Duncan Wood of Sanborn, Head & Associates resigned as LSP of Record for the Site. Glenn A. Carlson of Action Environmental Boston assumed that role on behalf of World 115 Nominee Trust.

In compliance with the ACOP, Action Environmental submitted RAM Status Report No. 2 on February 9, 2010; RAM Status Report No. 3 on August 4, 2010; RAM Status Report No. 4 on February 7, 2011; a Phase II CSA Report and a Phase III RAP on April 30, 2010; and a Phase IV RIP on June 29, 2010.

The Phase II CSA concluded that Site contamination consisted of four separate release conditions — individual UST releases separated by RTNs 3-28545, 3-28546, and 3-28548, and Site-wide release conditions associated with urban fill and historic low-level releases addressed under RTN 3-23606. The Phase III RAP concluded that excavation and off-site recycling was an appropriate remedial approach, with further refinement of the extent and magnitude of the contamination defined during excavation activities. During subsequent assessment activities performed in Phase IV, especially relative to for the asbestos in soil condition, however, Action Environmental Boston determined that the cost of such removal actions was excessive and impractical considering the highest and best use of the Property.

Clean Properties, Inc., assumed LSP oversight of the Site on May 10, 2011. Clean Properties submitted a Class A-2 RAO Statement for RTN 3-28548 on June6, 2011, which also serves as a Partial RAO for RTN 3-23606. This RAO Report is intended to cover the remainder of the Site.

4.2.1 — Summary of RAM Activities at RTN 3-23606

During building demolition activities and associated underground storage tank (UST) removals, several UST releases were identified that required separate 2-hour or 72-hour notifications to the MassDEP, resulting in issuance of RTNs 3-28545, 3-28546, and 3-28548 as discussed subsequently.

4.2.1.1 — Asbestos-Containing Soil within RTN 3-23606

During a June 9, 2009, MassDEP Site inspection, pieces of floor tile were identified in surficial urban fill in the northwestern quadrant of the Site, prompting the need for an asbestos-abatement action. Abatement of soil impacted with asbestos-containing building material was initiated by Atlantic Bay Contracting (Massachusetts Licensed Asbestos Contractor AC000309), under separate contract with World 115 Nominee Trust, with associated documentation included in ***Appendix B***). Atlantic Bay contracted with HUB Testing Laboratories to provide third-party assessment, monitoring, and confirmatory testing. During the course of June 2009 assessment, HUB Testing Laboratories identified a 30- by 40-foot area in which floor-tile fragments were present in surficial soil (see ***Figure 2***). Other incorporated building materials tested asbestos-free. At the request of the MassDEP Bureau of Waste Prevention (BWP), the initial inspection was supplemented by a gridded visual survey that identified such asbestos-containing floor tile fragments in a slightly larger 54- by 40-foot area, encompassing the previously identified area and indicating impact to the surficial 1-3 inches of soil. On November 17, 2009, HUB Testing Laboratories submitted an Asbestos Abatement Plan to the MassDEP, calling for the removal of the surficial three inches of soil; and, if no further pieces of tile were found, an additional six inches of soil would be removed to be conservatively protective. Following receipt of MassDEP approval for the Plan, the Abatement was implemented on December 21-24, 2009, with impacted soil removed manually after wetting down. Removed material was placed in a secured roll-off dumpster lined with polyethylene sheeting for transport to an accepting regulated landfill (Waste Management in Rochester, New Hampshire). Following removal of the top three inches of impacted soil and in the absence of visible indications of additional impact, HUB Testing Laboratories submitted an Asbestos Abatement Plan Modification on January 4, 2010, to conduct gridded test pits to confirm that sufficient removal had occurred rather than removing the additional six inches of urban fill stipulated in the original Plan. Testing conducted in February 2010 indicated that asbestos fibers remained in soil samples from a number of the test pits in the northern portion of the suspect area. In the northwestern quadrant of the investigation area, the test pits identified a bounding concrete slab approximately 1.5 feet below grade. In the northeastern quadrant where such a slab was not identified, no impact was indicated or would be expected below the 3-foot deep urban fill horizon; so the extent of impact was considered to be defined for Phase II CSA purposes. Following additional MassDEP approval, further excavation was performed to remove all the impacted soil above the concrete slab and the top inch over the remaining area not above the slab, which similarly was disposed to Waste Management. To evaluate the vertical and horizontal distribution of remaining asbestos contamination to soil in the 30x30-foot northeastern quadrant of the 54x40-foot investigation area, which is bounded by concrete foundation piers, HUB Testing Laboratories divided the area into 12 blocks. In September 2010, soil was collected from the surface of each block for laboratory analysis. Only grids adjacent to the formerly buried concrete slab were determined to contain residual asbestos. In January 2011, Iris Davis of MassDEP BWSC and BWP John Macauley of MassDEP BWP concurred that the asbestos condition potentially was eligible for alternative closure under the MCP, once the extent and magnitude of the "release" was identified and feasibility evaluations performed. Four-foot deep borings were installed at three locations in each target grid using a push-probe coring rig. Laboratory analysis at HUB Testing Laboratories determined depth of impact was limited to one foot below grade in all grids except C3, in which impact was identified extending to four feet below grade. A core collected from the 4-8 foot depth in grid C3 was determined to be free of asbestos content. Accordingly, the extent and magnitude of asbestos impact defined in the Phase II CSA was refined, indicating a substantially larger volume of impact than previously assumed. Remaining asbestos-containing soil was identified to total approximately 14 cubic yards. Exposed soils were covered with clean soil to preclude potential direct contact until Activity and Use Limitation (AUL) evaluations are completed and confirm elimination of exposure potential to these asbestos-containing soils. During site re-development, the area will be paved with asphalt as part of the parking lot for the proposed commercial building.

4.2.1.2 — Boring and Monitoring Well Investigations within RTN 3-23606

The April 30, 2010, Action Environmental Boston Phase II CSA Report relied on 22 historic borings/monitoring wells, five (5) historic test pits, and 16 post-demolition borings/monitoring wells to define conditions at the Property/site. To evaluate conditions further in the vicinities of the greatest contaminant concentrations detected at the site, twelve (12) additional borings/monitoring wells were installed in February 2011. Boring logs for those installations (AE-218 to AE-229) are included in Appendix A. All of these borings/monitoring wells served to further define the extent and magnitude of the contamination associated with the Stoddard solvent release (RTN 3-28546) except boring/monitoring well AE-225. The extent and magnitude of impact associated with the Stoddard solvent release, though refined, was not substantially altered from that identified in the Phase II CSA. Boring/monitoring well AE-225 was installed as close as possible to that of historic boring/monitoring well SH-6, which had identified relatively elevated PAH concentrations associated with an ash horizon 3-4 feet below grade. Sanborn, Head & Associates had reported that this zone was disturbed during building demolition; so, Action Environmental Boston wanted to evaluate whether such elevated PAH concentrations remained in the area. Concentrations of PAHs identified in an ash-bearing urban fill horizon 3 feet below grade in AE-225 were determined to be characteristic of PAH concentrations found site-wide (see ***Table 1***). Accordingly, Clean Properties considers it likely that conditions previously reported at SH-6 are no longer present at the site.

4.2.1.3 — Geophysical Survey of RTN 3-23606 for Subsurface Structures

To evaluate whether unknown underground storage tanks or other subsurface structures that could serve as contaminant sources remained at the Property, Radar Solutions International conducted ground-penetrating radar (GPR), electromagnetic induction, and magnetometer surveys across the entire Site on March 2 and March 5, 2010, under the oversight of Action Environmental Boston. Radar Solutions International's report was submitted as an Attachment to the Phase II CSA Report.

Radar Solutions International established a 10-foot grid across the Site. Then a Geonics EM-61 time-domain electromagnetic induction meter was used to search for buried metallic objects, with measurements obtained every 2.5 feet. Radar Solutions International also used a Geometrics total field cesium magnetometer to map disturbances in the earth's magnetic field indicative of iron and steel objects. Ground-penetrating radar data were collected using a GSSI SIR 3000 radar system with a 400 megahertz antenna. Maximum radar penetration at the Site was eight feet, with six feet being average. Beneath the concrete slab in the northwestern portion of the Site, rebar limited penetration to four feet.

Combined, these geophysical methods indicated the presence of a tank-sized magnetic anomaly 1-1.5 feet below grade near grid point 65E and 90N, a location south of the former fuel-oil and Stoddard Solvent tanks and northeast of the former west gasoline tank. Action Environmental Boston hand dug in this location to evaluate the nature of the anomaly, identifying a cast iron grate over an apparent stormwater catchment basin.

Numerous other GPR reflectors were identified across the Site that did not correspond to magnetic anomalies. Such reflectors are typical in urban fill and likely are due to fragments of concrete, brick, boulders, etc. Broad diffuse areas of above-background induced electromagnetic values also were identified associated with urban fill at the Site, suggesting the presence of numerous small metal-bearing objects in the soil.

Accordingly, no unknown USTs or other significant structures are indicated to remain at the Site that could serve as ongoing contaminant releases.

4.2.2 — RAM Completion Statement for RTN 3-23606

Sanborn, Head & Associates submitted an original RAM Plan relative to RTN 3-23606 on October 4, 2007. The current Modified RAM Plan was submitted by Sanborn, Head & Associates on behalf of World 115 Nominee Trust on May 13, 2009. Subsequent RAM Status Reports were submitted on September 9, 2009; February 5, 2010; and August 4, 2010.

The objectives of the initial RAM Plan were to:

1. Provide soil and groundwater management for remediation and non-remediation waste;
2. Conduct confirmatory sampling in excavation areas;
3. Provide responses in conformance with the MCP in areas with newly discovered environmental conditions (including asbestos-containing building materials in soil);
4. Ensure that OSHA health and safety requirements are met, including site security;
5. Monitor air during ground disturbances to assure dust and nuisance odor control;
6. In support of demolition and construction activities in contaminated areas, provide focused site characterization, focused risk characterization, focused remedial actions, and focused feasibility studies as necessary and appropriate.

Additional RAM Plan objectives set forth in Modified RAM Plans submitted January 11, 2008 (and amended March 3, 2008), April 8, 2009 (and amended April 16, 2009), and May 13, 2009, included:

7. Off-site disposal of construction debris stockpiles;

8. On-site crushing and reuse of remaining brick and/or concrete building structural, foundation, footing, and pavement materials, subject to a Beneficial Use Determination (BUD) assessment; and

9. Implementation of best management practices to control stormwater and off-site erosion.

This section documents the achievement of these objectives.

Pursuant to 310 CMR 40.0446(4)(a), a RAM Completion Report must contain a description of the release or threat of release, site conditions, and surrounding receptors. Release conditions associated with urban fill and widespread contaminant conditions were previously described in ***Section 4.2.***. New releases discovered during RAM activities include the IRA conditions described in following ***Section 4.3***, and the abatement of asbestos-containing floor tile fragments in soil is described in Section ***4.2.1***. A discussion of surrounding receptors was presented in ***Section 3.3***.

Oversight, soil management, and monitoring activities were performed by Sanborn, Head & Associates during and associated with building demolition, as documented in the cited RAM Status Reports and Plans. The RAM Plan was modified several times to detail further the procedures to used to excavate, segregate, stockpile, and dispose or reuse the two then-existing construction debris stockpiles at the site and additional foundation and other construction debris materials generated during the building demolition and associated site work. These activities were completed and documented in Sanborn, Head & Associates' September 9, 2009, RAM Status Report.

The RAM determined that average PAH and petroleum hydrocarbon concentrations in urban fill constituting the uppermost 0-4 feet of soil at the Property are consistent with MassDEP-derived urban background levels for soils containing coal and ash. Assessment activities performed during the RAM confirmed such characteristics for on-site urban fill. Petroleum releases associated with former underground storage tank use at the Property were addressed under separate IRAs, as discussed in following ***Section 4.3***.

Accordingly, all RAM activities have been completed. Subsequent sections of this report document a Condition of No Significant Risk associated with the site identified by RTN 3-23606. Despite site closure with this RAO, future soil disturbance associated with building construction and Property development warrants future oversight under appropriate Health & Safety Plans and Soil Management Plans pursuant to MassDEP Policy #WSC-00-425 — recognizing that exceedances of MCP Reportable Concentrations will remain at the Property.

4.3 — RTNs 3-28545, 3-28546, and 3-28548

During implementation of the RAM for RTN 3-23606 to demolish Site features, three new releases or threats of release resulted.

4.3.1 — RTN 3-28545

RTN 3-28545 identifies the June 4, 2009, release of hydraulic oil from a previously unknown approximately 100-gallon UST that was encountered during demolition by contractor Tufts, Inc., on the west side of the building north of the former fuel-oil and Stoddard solvent USTs (***Figure 2***). Tufts originally reported the release as less than 10 gallons, which Sanborn, Head & Associates considered to be non-reportable. During a June 9, 2009, Site inspection by MassDEP representatives, Tufts identified the release as perhaps 20 gallons, triggering a 2-Hour Reporting Condition identified by RTN 3-28545. Tank contents were drummed for disposal. The tank was cleaned, removed, and disposed at the State-licensed tank yard of Turner Trucking & Salvage in Lynn, Massachusetts. The instantaneous release of more than 10 gallons of petroleum to the environment constituted an IRA condition. Because the release initially was not considered by Sanborn, Head & Associates to be reportable, the release notification was made late to the MassDEP, which issued a NON as part of December 2009 ACOP-NE-09-3E009, as detailed in previous ***Section*** *4.2*.

4.3.1.1 — IRA Actions Performed at RTN 3-28545

The MassDEP issued an oral approval of the following IRA activities on June 9, 2009:

1. Covering potentially impacted soils with polyethylene sheeting, which was performed on June 9, 2009; and

2. Conduct of a geophysical survey of the Property to search for indications of other possible unknown USTs, which was performed on March 2 and March 5, 2010.

Excavation of oil-impacted soil was not verbally authorized, because the MassDEP had observed suspected asbestos-containing floor tile fragments in the fill of the area. MassDEP mandated conduct of asbestos abatement prior to other disturbance. This asbestos abatement was managed separately by a State-licensed asbestos abatement firm pursuant to 453 CMR 6.00, with soil management overseen pursuant to the RAM Plan for RTN 3-23606, which was broadly developed to address such environmental conditions if encountered during demolition and/or development with minimal project disruption.

Pursuant to the Asbestos Abatement Plan prepared by HUB Testing Laboratories, shallow test pits were performed on a grid to determine the area of visible asbestos involvement at the Property. An approximately 2,000-square-foot area of impact was defined, from which a three-inch lift of asbestos-bearing soil was removed and placed in sealed containers December 23-24, 2009. During soil disturbance, air was monitored for particulates in accordance with the RAM Soil Management Plan and for airborne fibers in accordance with the Asbestos Abatement Plan. Details of the removal action were included in Action Environmental's February 5, 2010, RAM Status Report. Subsequent confirmatory testing by HUB Testing Laboratories using test pits identified asbestos fibers remaining in soils below the removal level but not detected below the 4-foot urban fill horizon. Because the remaining asbestos-impacted soil was determined to require removal and disposal at a cost exceeding the benefit to the environment, considering proposed use of the Property and the ease of precluding exposure, an AUL will be implemented for the remaining area of asbestos in soil (as excluded from this Partial RAO).

On September 3, 2009, Sanborn, Head & Associates submitted a written IRA Plan that proposed the following additional activities:

1. After removal of asbestos-bearing soil by a State-licensed asbestos-abatement firm is completed, the area of hydraulic oil impact will be investigated;

2. Identified oil-impacted soil will be excavated and stockpiled on and under polyethylene sheeting;

3. Confirmatory soil samples will be collected from the sidewalls and floor of the excavation for laboratory analysis of VPH, EPH, and VOCs;

4. Stockpiled soils will be characterized for disposal and shipped off-site to an appropriate facility;

5. After the excavation is complete, the excavation will be backfilled with non-impacted formation material. Monitoring wells then will be installed in the tank grave area to evaluate whether groundwater has been impacted by this release; and

6. A geophysical survey will be performed to identify indications of other possible unknown USTs.

On December 28, 2009, oversight of IRA actions for this Site were assumed by Action Environmental on behalf of World 115 Nominee Trust. Action Environmental Boston submitted IRA Status Reports on December 31, 2009; June 29, 2010, and January 3, 2011. A Phase I ISI Report and Tier Classification submittal was filed with the MassDEP for the site on June 9, 2010, with the site classified Tier II based on a Numerical Ranking Score (NRS) of 176. Clean Properties assumed LSP oversight on May 10, 2011.

4.3.1.2 — IRA Completion Statement for RTN 3-28545

The elements of an IRA Completion Statement are set forth in 310 CMR 40.0427. The description of the release, IRA objectives, and IRA activities are identified in previous ***Section 4.3.1.1***. MassDEP conditions on the IRA set forth in the ACOP are further described in previous ***Section 4.2***. Surrounding receptors are documented in previous ***Section 3.3***.

Borings AE-111, AE-112, AE-113, AE-223, AE-224, SH-2, and SH-4 were installed within the impact area of the hydraulic oil release identified by RTN 3-28545. Soil data from those borings are summarized in ***Table 1***. Because of the limited volume of the release, impact was not considered to have migrated from the release to groundwater; however, low concentrations of petroleum hydrocarbons in groundwater within the boundaries of RTN 3-28545 likely are attributable to the overlapping release from the Stoddard solvent tank identified by RTN 3-28546. Groundwater data are summarized in ***Table 2***. Supporting laboratory reports are included in ***Appendix C***.

IRA objectives were addressed as follows:

> Based on these activities and data, Clean Properties considers the IRA to be complete. As detailed in ***Section 4.2***, a substantial amount of the asbestos-impacted soil (50 cubic yards) was removed as disposed off-site (see ***Appendix A***). The remaining impacted soil is geographically confined within concrete footing piers of the former building and unconfined vertically to depths between 1-4 feet below grade. Based on a surficial area of 375 square feet and assuming an average depth of impact of 2 feet, approximately 14 cubic yards of asbestos-impacted soil remain at the site. Based on the average cost for removal and disposal of the previously removed soil and a proposal from Atlantic Bay Contractors, the cost of removing the remaining 14 cubic yards would be substantially more than the benefit gained by its removal. Accordingly, surficial cover and an AUL will be implemented to eliminate exposure potential, in a subsequent RAO submittal.
>
> Oil-impacted soil within the area of the site are tabulated in *Table 1*, with the maximum, minimum, and average concentrations tabulated in *Table 5*. No Reportable Concentrations were identified in the surficial three feet. Determined concentrations of VPH C_9-C_{12} Aliphatic Hydrocarbons and/or VPH C_9-C_{10} Aromatic Hydrocarbons in soils greater than three feet below grade in borings AE-112, AE-115, and SH-2 at the site of RTN 3-28545 were determined to exceed MCP Method 1 Soil S-1 Risk Criteria for a Groundwater GW-2/3 setting; however, none of the concentrations were determined to approach or exceed MCP Upper Concentration Limits (UCLs). None of the groundwater samples performed in the monitoring wells of the site area were determined to contain concentrations exceeding or approaching MCP Method 1 Groundwater GW-2/3 Risk Criteria during February 2011 and September 2003 sampling events. Based on a Method 3 Risk Assessment documented in ***Section 5.3*** that indicated that a Condition of No Significant Risk is present at the Site,

excavation and removal of impacted soil from the area that was proposed in the IRA Plan was not performed at the Site. Confirmatory soil sampling of the excavation boundaries and disposal characterization of removed soil to determine appropriate off-site disposal requirements were not performed in the absence of soil excavation. Similarly, backfilling with clean formation soil was unnecessary in the absence of soil excavation.

On March 2, 2010, and March 5, 2010, Radar Solutions International conducted ground-penetrating radar (GPR), electromagnetic induction, and magnetometer surveys across the site and remainder of the Property (***Appendix D***). No magnetic or radar anomalies were identified in the vicinity of the site that could indicate an unknown additional UST or similar subsurface structure.

Based on the completion of these activities and the above-referenced determinations, IRA objectives stipulated in the IRA Plan or their equivalents were met.

4.3.1.3 — Evaluation of Condition of Substantial Release Migration (CSRM) for RTN 3-28545

Pursuant to 310 CMR 40.0006, a Condition of Substantial Release Migration is present if any of the following exists:

a. Releases have resulted in the discharge of separate-phase oil and/or separate-phase hazardous material to surface waters, subsurface structures, or underground utilities or conduits;

b. Releases have occurred to the ground surface or to the vadose zone that, if not promptly removed or contained, are likely to significantly impact the underlying groundwater, or significantly exacerbate an existing condition of groundwater pollution;

c. Releases have occurred to groundwater that have migrated or are expected to migrate more than 200 feet per year;

d. Releases have occurred to groundwater that have been or are within one year likely to be detected in a public or private water supply well;

e. Releases have occurred to groundwater that have been r are within one year likely to be detected in a surface-water body, wetland, or public water supply reservoir; or

f. Releases have occurred to groundwater or to the vadose zone that have resulted or are within one year likely to result in the discharge of vapors into school buildings or occupied residential dwellings.

No separate phase contaminants have been identified at the site or would be expected considering the apparent small volume of the release. The UST that was the source of the contamination has been removed and thus does not constitute a continuing source, and no substantial leaching to groundwater has been identified. Accordingly, no Condition of Substantial Release Migration is indicated or suspected at the site.

4.3.1.4 — Evaluation of Critical Exposure Pathways for RTN 3-28545

Pursuant to 310 CMR 40.0006, Critical Exposure Pathways (CEPs) are those routes by which oil and/or hazardous material(s) released at a disposal site are transported, or are likely to be transported, to human receptors via:

a. Vapor-phase emissions of measurable concentrations of oil and/or hazardous materials into the living or working space of a pre-school, daycare, school, or occupied residential dwelling; or
b. Ingestion, dermal absorption, or inhalation of measurable concentrations of oil and/or hazardous materials from drinking water supply wells located at and servicing a pre-school, daycare, school, or occupied residential dwelling.

Currently, the Property encompassing the Site is vacant and undeveloped, with no occupancy leading to potential exposure. Soil impacted by the hydraulic oil release was not identified less than three feet below grade, so potential for direct exposure is limited to excavation activities.

Proposed development is with a commercial building that will not extend to or near the site (***Figure 2***). The site will lie beneath the paved parking lot and drives of the Property. Because none of the site soil containing detectable volatile contaminants exceeding MCP Method 1 Soil S-1 Risk Criteria will be within six feet horizontally of the proposed building, site soil is not considered to have the potential to result in significant indoor air contaminant concentrations, pursuant to 310 CMR 40.0942(1)(d). Action Environmental Boston evaluated this potential further using Level 1 Soil-Gas Screening methods pursuant to MassDEP Policy #WSC-02-411. Soil gas collected in a Tedlar bag from three feet below grade near the location with the greatest soil contaminant impact (AE-115) was monitored using a PID equipped with a 10.6-eV ionization lamp that had been calibrated to respond quantitatively as if all VOCs were isobutylene. The maximum measured soil-gas PID reading was 2.5 ppmv, less than the lowest Hydrocarbon Fraction and Target VOC (4 ppmv for Ethylbenzene) identified by the MassDEP as likely to result in potential indoor air impact. Accordingly, indoor air impact to a future building constructed at the site is not anticipated. Clean Properties also notes that building use (particularly ground-floor use) is not proposed to include pre-school, daycare, school, or residential uses; however, no Activity and Use Limitation (AUL) has been implemented that would preclude such use at this time.

4.3.1.5 — Evaluation of Imminent Hazard Potential for RTN 3-28545

Pursuant to 310 CMR 40.0321, in the absence of a Cumulative Risk Analysis, an Imminent Hazard (IH) could be present if:

a. A release to the environment results in the presence of oil and/or hazardous material vapors within buildings, structures, or underground utility conduits at a concentration equal to or greater than 10% of the Lower Explosive Limit (LEL);

b. A release to the environment of reactive or explosive hazardous material exists that threatens human health or safety;

c. A release to a roadway endangers public safety;

d. A release to the environment of oil and/or hazardous materials poses a significant risk to human health when present for even a short period of time (as specified in 310 CMR 40.0950);

e. A release to the environment produces immediate or acute adverse impacts to freshwater or saltwater fish populations;
f. A release to the environment produces readily apparent effects to human health, including respiratory distress or dermal irritation;

g. A release to the environment is indicated by the measurement of oil and/or hazardous material in a private drinking-water supply well at a concentration equal to or greater than ten (10) times the RCGW-1 Reportable Concentration;

h. A release to the environment is indicated by the measurement of concentrations of hazardous material equal to or greater than the following concentrations at the ground surface or within one foot of the ground surface at a location within 500 feet of a residential dwelling, school, playground, recreational area or park, unless access by children is controlled or prevented by means of pavement, fence, or other physical barrier:

Arsenic (total)	40 ppm
Cadmium (total)	60 ppm
Chromium (VI or total)	200 ppm
Cyanide (available)	100 ppm
Mercury (total)	300 ppm
Methyl Mercury	10 ppm
PCB (total)	10 ppm

or

I. A release to the environmental results in long-term risk levels associated with current exposures that are greater than ten (10) times the Cumulative Receptor Risk Limits in 310 CMR 40.0993(6).

No conditions have been identified at the Site that meet any of these criteria, so an Imminent Hazard is not considered to be present, pursuant to 310 CMR 40.0426. Furthermore, pursuant to the Method 3 Risk Assessment for RTN 3-28545 presented in ***Section 5.3***, no Imminent Hazard is associated with the site.

4.3.1.6 — Conceptual Site Model for RTN 3-28545

The following Conceptual Site Model for RTN 3-28545 was developed from environmental testing at the site, known of the release, and information available from nearby locales, particularly including other locations at the Property encompassing the site.

The site is located on the toe of a drumlin hill that slopes downward in a south-southeasterly direction. The groundwater flow direction determined at the Property encompassing the site is consistent with that "regional" topographic gradient — being 0.012 foot per foot south-southeasterly (***Figure*** *7*).

During the demolition of the previous industrial building on the Property, a previously unknown underground storage tank was encountered and ruptured, spilling an estimated 10-20 gallons of hydraulic oil. The oil leaked into soil at the bottom of the tank bed. Based on the sandy nature of the soil the spilled oil apparently drained more vertically than horizontally, apparently impacting approximately 50 cubic yards of area soil. Leachate from this release is not considered to have impacted groundwater, as petroleum hydrocarbons detected in the groundwater at the site were characterized by VPH fractions consistent with the Stoddard solvent release at RTN 3-28546 rather that EPH fractions typical of an hydraulic oil release. Accordingly, the boundaries of RTN 3-28545 are considered to lie within those of RTN 3-28546.

4.3.1.7 — Remediation Waste Management for RTN 3-28545

The liquid contents of the former hydraulic UST and liquid wastes generated during its cleaning were transferred to drums (unsegregated from the contents of the Stoddard Solvent UST) on June 4, 2009. The drums were transported by Clean Ventures to General Chemical Corp. on August 25, 2010, for treatment/disposal. Disposal documents are included in ***Appendix E***.

The UST was cleaned and disposed at the State-licensed tank yard at Turner Trucking & Salvage in Lynn, Massachusetts.

Potentially impacted soil was covered with polyethylene sheeting on June 9, 2009, awaiting excavation and disposal until after completion of the overlapping asbestos abatement. Ongoing asbestos abatement may have removed much of the petroleum-impacted soil associated with RTN 3-28545.

4.3.1.8 — IRA Completion Statement for RTN 3-28545

In the opinion of Clean Properties, this report meets the requirements for an IRA Completion Report set forth in 310 CMR 40.0425.

Activities identified in this IRA Completion Report that were not documented in previous MassDEP submittals are herewith certified as having been performed in accordance with the MCP.

The seal and signature of the LSP responsible for this IRA Completion Report, Marcia J. Berger (LSP #4667) are presented through the electronic submittal of accompanying IRA Transmittal Form (BWSC-105).

4.3.2 — RTN 3-28546

On June 9, 2009, two approximately 5,000-gallon side-by-side USTs that reportedly previously had been closed in-place were removed from the Property under the RAM for RTN 3-23606, with oversight provided by Sanborn, Head & Associates. One of the USTs formerly had contained fuel oil and the other reportedly had contained Stoddard Solvent. During the UST removals, the former fuel-oil UST was found to be filled with flowable fill; but the Stoddard Solvent UST was determined to contain residual solvent and sludge. Field screening with a photoionization detector (PID) performed in accordance with the MassDEP Jar Headspace Method identified soil from the southern end of the Stoddard Solvent tank as exhibiting a PID measurement of 781 parts per million by volume (ppmv) — constituting a 72-hour reportable condition pursuant to 310 CMR 40.0313(2). The MassDEP was verbally notified of the release on June 9, 2009; and limited IRA actions were verbally approved at the time of notification. A written IRA Plan was submitted to the MassDEP on September 3, 2009. IRA Status Reports were submitted on December 31, 2009; June 29, 2010; and January 3, 2011.

4.3.2.1 — IRA Actions Performed at RTN 3-28546

The June 9, 2009, oral approval for the IRA authorized:

1. Disposal characterization of tank contents, including analysis for VOCs by USEPA Method 8260;

2. Removal and off-site disposal of the contents of the Stoddard Solvent UST;

3. Cleaning and removal of the USTs;

4. Assessment of soil conditions in the vicinity of the USTs; and

5. Off-site disposal of up to 500 cubic yards of impacted soil from the vicinity of the USTs.

On June 9, 2009, the contents of the Stoddard Solvent tank were pumped using a vacuum truck. The approximately 2,100 gallons were transported to Murphy's Waste Oil Service in Woburn, Massachusetts, for disposal. On June 10, 2009, sludge from the tank was transferred to a roll-off container for off-site disposal. The Stoddard Solvent tank was cleaned and removed from the Site on June 11, 2009. The fuel-oil tank was removed on June 12, 2009. Both tanks were disposed at Turner Trucking and Salvage of Lynn, Massachusetts. Concrete from the fuel-oil tank was placed back in the excavation, and the tank bed was backfilled with formation material. The contents of the roll-off container were sampled for disposal characterization on June 12, 2009, as documented in the IRA Plan. On August 25, 2010, Clean Venture emptied the roll-off container of 2,250 gallons of flowable Stoddard Solvent wastes and 3,500 pounds of associated solids, transporting them to General Chemical Corp.'s Framingham, Massachusetts, facility for treatment and disposal. Manifests and supporting documents are included in ***Appendix F***. Clean Ventures also delivered seven (7) 55-gallon drums of Stoddard Solvent that had been cleaned from the tank to General Chemical Corp. for treatment and disposal. Subsequent testing of the drum contents at the facility identified detectable PCBs in two (2) of the drums, ranging in concentration from 19.3 ppm to 260.2 ppm. Based on the absence of other than trace concentrations in any source materials test (such as the contents of the roll-off), the absence of PCBs in soils at the Site, and the absence of processes at the former facility involving PCBs, the material was determined not to be regulated by TSCA. Because PCBs also were detected in two (2) of the drums of wastes from the gasoline tanks, the source of PCBs was attributed to waste residues in the contractor-provided used drums, which was confirmed by Clean Ventures' wipe testing the drums. The drums had previously been used and were provided by excavation contractor Tufts, Inc.

The September 3, 2009, written IRA Plan for RTN 3-28546 proposed the following activities:

1. The former tank grave area will be re-excavated to investigate the vertical and horizontal extent of petroleum-impacted soil. During the excavation, soil samples will be field-screened with a PID, and soil showing evidence of significant petroleum contamination will be stockpiled on polyethylene sheeting and covered with the same. The extent of the excavation will proceed until visual, olfactory, and PID field screening evidence indicate that the limits of contamination have been reached, or another Site feature prohibits additional excavation. The excavation will proceed vertically until the apparent limits of contamination have been reached or until groundwater has been reached.

2. Confirmatory sidewall and bottom soil samples will be collected from the excavation to evaluate the conditions at the limits of the excavation area. If groundwater is encountered within the excavation, a grab groundwater sample may be collected in lieu of a bottom soil sample. Confirmatory soil and/or groundwater samples will be submitted to a laboratory for analysis of EPH, VPH, and VOCs.

3. Stockpiled soil that is removed from the tank grave area as petroleum-impacted will be characterized for off-site disposal and then shipped off-site. The disposal facility type will depend on the results of the characterization testing.

4. After the excavation is complete, the excavation will be backfilled with non-impacted formation material. Monitoring wells then will be installed in the tank grave area to evaluate whether groundwater has been impacted by this release.

Because of the proximity of the site of the area of urban fill containing asbestos, Sanborn, Head & Associates postponed IRA actions pending completion of asbestos abatement.

On December 28, 2009, oversight of IRA actions for this site were assumed by Action Environmental on behalf of World 115 Nominee Trust. Action Environmental submitted IRA Status Reports on December 31, 2009; June 29, 2010; and January 3, 2011. A Phase I ISI Report and Tier Classification submittal was filed with the MassDEP for the site on June 9, 2010, with the site classified Tier II based on a Numerical Ranking Score (NRS) of 131. Clean Properties assumed LSP oversight of response actions on behalf of World 115 Nominee Trust on May 10, 2011.

4.3.2.2 — IRA Completion Statement for RTN 3-28546

The elements of an IRA Completion Statement are set forth in 310 CMR 40.0427. The description of the release, IRA objectives, and IRA activities are identified in previous ***Section 4.3.2.1***. Surrounding receptors are documented in previous ***Section 3.3***.

Historic borings GP-1, GP-3, SH-1, SH-2, SH-3, SH-4, SH-5, SB-1, ET-1, ET-2, ET-3, MW-1, and MW-3 previously had been performed within the site area but were destroyed during removal of building foundations in 2009. Borings AE-109, AE-111,AE-112, AE-113, AE-114, AE-115, AE-218, AE-219, AE-220, AE-221, AE-223, AE-224, and AE-226 were installed within the impact area of the Stoddard solvent release identified by RTN 3-28546. Soil data from those borings are summarized in ***Table 1***, with the maximum, minimum, and average concentrations tabulated in ***Table 6***. The area of associated soil impact indicates that the release occurred over a period of time. Groundwater data within the area of soil impact are summarized in ***Table 2***, with supporting laboratory reports are included in ***Appendix C***. Low concentrations of petroleum hydrocarbons, principally VPH fractions, were detected in groundwater from the site; however, none of the petroleum contaminants were detected at concentrations exceeding applicable Reportable

Concentrations — except VPH C_9-C_{12} Aliphatic Hydrocarbons detected in monitoring well AE-220 at the southern margin of the release area in February 2011 immediately after well installation. Because this groundwater sample was observed to contain significant sediment, the relatively elevated petroleum hydrocarbon concentration was attributed to soil contributions; and resampling of the monitoring well identified no detectable petroleum hydrocarbons. Historically, detectable concentrations of tetrachloroethene were identified in groundwater samples from MW-2 and MW-3 — with the April 1990 concentration of tetrachloroethene in MW-3 (immediately south of the former USTs) identified as 57.0 µg/L exceeding the Method 1 GW-2 Standard of 50 µg/L, but with the July 1992 concentration identified as only 9.0 µg/L. Detectable tetrachloroethene was not identified in any of the replacement monitoring wells installed after building demolition, including MW-2 replacement AE-223 and MW-3 replacement AE-114. No exceedances of UCLs were identified associated with the site.

IRA objectives were addressed as follows:

> Based on these activities and data, Clean Properties considers the IRA to be complete. Tanks, tank contents, and other wastes have been removed — eliminate the sources for release. Subsurface soil and groundwater conditions have been determined to indicate a generally low-level impact with petroleum hydrocarbons. Based on a Method 3 Risk Assessment documented in ***Section 5.3*** that indicated that a Condition of No Significant Risk is present at the Site and based on the infeasibility of achieving background as documented in ***Section 7.0***, excavation and removal of impacted soil from the area that was proposed in the IRA Plan was not performed at the Site. Confirmatory soil sampling of the excavation boundaries and disposal characterization of removed soil to determine appropriate off-site disposal requirements were not performed in the absence of soil excavation. Similarly, backfilling with clean formation soil was unnecessary in the absence of soil excavation.
>
> Based on the completion of these activities and the above-referenced determinations, IRA objectives stipulated in the IRA Plan or their equivalents were met.

4.3.2.3 — Evaluation of Condition of Substantial Release Migration (CSRM) for RTN 3-28546

No separate phase contaminants have been identified at the site or would be expected considering the apparent small volume of the release. The USTs that were the sources of the contamination have been removed and thus do not constitute a continuing source, and no substantial leaching to groundwater has been identified. Accordingly, no Condition of Substantial Release Migration is indicated or suspected at the site.

4.3.2.4 — Evaluation of Critical Exposure Pathways for RTN 3-28546

Pursuant to 310 CMR 40.0006, Critical Exposure Pathways (CEPs) are those routes by which oil and/or hazardous material(s) released at a disposal site are transported, or are likely to be transported, to human receptors via:

a. Vapor-phase emissions of measurable concentrations of oil and/or hazardous materials into the living or working space of a pre-school, daycare, school, or occupied residential dwelling; or

b. Ingestion, dermal absorption, or inhalation of measurable concentrations of oil and/or hazardous materials from drinking water supply wells located at and servicing a pre-school, daycare, school, or occupied residential dwelling.

Currently, the Property encompassing the Site is vacant and undeveloped, with no occupancy leading to potential exposure. Soil impacted by the Stoddard solvent release was not identified less than three feet below grade, so potential for direct exposure is limited to excavation activities.

Proposed development is with a commercial building that will not extend to or near the site (***Figure 2***). The site will lie beneath the paved parking lot and drives of the Property. Because none of the site soil containing detectable volatile contaminants exceeding MCP Method 1 Soil S-1 Risk Criteria will be within six feet horizontally of the proposed building, site soil is not considered to have the potential to result in significant indoor air contaminant concentrations, pursuant to 310 CMR 40.0942(1)(d). Action Environmental Boston evaluated this potential further using Level 1 Soil-Gas Screening methods pursuant to MassDEP Policy #WSC-02-411. Soil gas samples collected in Tedlar bags from three feet below grade near the locations with the greatest soil contaminant impact (AE-115 and AE-226) were monitored using a PID equipped with a 10.6-eV ionization lamp that had been calibrated to respond quantitatively as if all VOCs were isobutylene. The maximum measured soil-gas PID readings were 2.5 ppmv and 2.1 ppmv, respectively, less than the lowest Hydrocarbon Fraction and Target VOC (4 ppmv for Ethylbenzene) identified by the MassDEP as likely to result in potential indoor air impact. Accordingly, indoor air impact to a future building constructed at the site is not anticipated. Clean Properties also notes that building use (particularly ground-floor use) is not proposed to include pre-school, daycare, school, or residential uses; however, no Activity and Use Limitation (AUL) has been implemented that would preclude such use at this time.

4.3.2.5 — Evaluation of Imminent Hazard Potential for RTN 3-28546

Pursuant to 310 CMR 40.0321, in the absence of a Cumulative Risk Analysis, an Imminent Hazard (IH) could be present if:

a. A release to the environment results in the presence of oil and/or hazardous material vapors within buildings, structures, or underground utility conduits at a concentration equal to or greater than 10% of the Lower Explosive Limit (LEL);

b. A release to the environment of reactive or explosive hazardous material exists that threatens human health or safety;

c. A release to a roadway endangers public safety;

d. A release to the environment of oil and/or hazardous materials poses a significant risk to human health when present for even a short period of time (as specified in 310 CMR 40.0950);

e. A release to the environment produces immediate or acute adverse impacts to freshwater or saltwater fish populations;

f. A release to the environment produces readily apparent effects to human health, including respiratory distress or dermal irritation;

g. A release to the environment is indicated by the measurement of oil and/or hazardous material in a private drinking-water supply well at a concentration equal to or greater than ten (10) times the RCGW-1 Reportable Concentration;

h. A release to the environment is indicated by the measurement of concentrations of hazardous material equal to or greater than the following concentrations at the ground surface or within one foot of the ground surface at a location within 500 feet of a residential dwelling, school, playground, recreational area or park, unless access by children is controlled or prevented by means of pavement, fence, or other physical barrier:

Arsenic (total)	40 ppm
Cadmium (total)	60 ppm
Chromium (VI or total)	200 ppm
Cyanide (available)	100 ppm
Mercury (total)	300 ppm
Methyl Mercury	10 ppm
PCB (total)	10 ppm

or

I. A release to the environmental results in long-term risk levels associated with current exposures that are greater than ten (10) times the Cumulative Receptor Risk Limits in 310 CMR 40.0993(6).

No conditions have been identified at the Site that meet any of these criteria, so an Imminent Hazard is not considered to be present, pursuant to 310 CMR 40.0426. Furthermore, pursuant to the Method 3 Risk Assessment for RTN 3-28546 presented in ***Section 5.3***, no Imminent Hazard is associated with the site.

4.3.2.6 — Conceptual Site Model for RTN 3-28546

The following Conceptual Site Model for RTN 3-28546 was developed from environmental testing at the site, known conditions of the release, and information available from nearby locales, particularly including other locations at the Property encompassing the site.

The site is located on the toe of a drumlin hill that slopes downward in a south-southeasterly direction. The groundwater flow direction determined at the Property encompassing the site is consistent with that "regional" topographic gradient — being 0.012 foot per foot south-southeasterly (***Figure 7***).

Accompanying demolition of the previous industrial building on the Property, two underground storage tanks that reportedly had been filled in place in the early 1970s[4] were removed in June 2009 — 5,000-gallon fuel-oil and 5,000-gallon Stoddard solvent USTs. Based on the presence of a "sweet" odor characteristic of Stoddard solvent and measurement of elevated PID readings associated with soil in the tank bed of the Stoddard solvent tank, a release occurred from the Stoddard solvent tank. Based on the area of impact around the tank bed, broadly dispersed generally radially around the tank bed approximately 7-15 feet below grade, the release likely occurred over time with contaminants adsorbed in the soil spread by fluctuations of the water table over subsequent years. The quantity of the release is unknown. Leachate from this release is not considered to have substantially impacted groundwater, as none of the petroleum hydrocarbons detected in the groundwater at the site exceeded MCP Reportable Concentrations.

4.3.2.7 — Remediation Waste Management for RTN 3-28546

On June 9, 2009, the contents of the Stoddard solvent tank were pumped using a vacuum truck. The approximately 2,100 gallons were transported to Murphy's Waste Oil Service in Woburn, Massachusetts, for disposal. On June 10, 2009, approximately 6 cubic yards of sludge from the tank were transferred to a water-tight roll-off container for off-site disposal, along with soil from the tank bed exhibiting the most elevated PID levels. The Stoddard solvent tank was cleaned and removed from the Site on June 11, 2009, with unpumpable wastes placed in seven (7) drums for off-site disposal. The fuel-oil tank was removed on June 12, 2009. Both tanks were disposed at Turner Trucking & Salvage of Lynn, Massachusetts. Flowable fill from the fuel-oil tank was determined to be free of oil residues and was placed back in the excavation with the remainder of the tank bed backfilled with formation material. The contents of the roll-off container were sampled for disposal characterization on June 12, 2009, and determined to be non-hazardous. On August 25, 2010, Clean Venture emptied the roll-off container of 2,250 gallons of flowable Stoddard Solvent wastes and 3,500 pounds of associated solids, transporting them to General Chemical Corp.'s Framingham, Massachusetts, facility for treatment and disposal. Manifests and supporting documents are included in ***Appendix F***. Clean Ventures also delivered the seven (7) 55-gallon drums of unpumpable Stoddard solvent that had been cleaned from the tank to General Chemical Corp. for treatment and disposal. Subsequent testing of the drum contents at the facility identified detectable PCBs in two (2) of the drums, ranging in concentration from 19.3 ppm to 260.2 ppm. Based on the absence of other than trace concentrations in any source materials test (such as the contents of the roll-off), the absence of PCBs in soils at the Site, and the absence of processes at the former facility involving PCBs, the material was determined not to be regulated by TSCA. Because PCBs also were detected in two (2) of the drums of wastes from the gasoline tanks, the source of PCBs was attributed to waste residues in the contractor-provided used drums.

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[4] According to Rizzo (1995), the Eastern Overall Company operated a uniform supply and cleaning company on the Property from 1950-1972. Successor John Solomon International (aka Somerville Apparel Company) filled the tanks in place and operated a stitchery for the manufacturing of sports clothing from 1972-2002. Rizzo reported that it excavated the tanks to confirm their in-place closure and filling with flowable fill, but the Stoddard solvent UST was found to contain residual Stoddard solvent instead of flowable fill at the time of its removal in 2009.

4.3.2.8 — IRA Completion Statement for RTN 3-28546

In the opinion of Clean Properties, this report meets the requirements for an IRA Completion Report set forth in 310 CMR 40.0425.

Activities identified in this IRA Completion Report that were not documented in previous MassDEP submittals are herewith certified as having been performed in accordance with the MCP.

The seal and signature of the LSP responsible for this IRA Completion Report, Marcia J. Berger (LSP #4667) are presented through the electronic submittal of accompanying IRA Transmittal Form (BWSC-105).

4.3.3 — RTN 3-28548

On June 8, 2009, the two 1,000-gallon gasoline USTs that had been abandoned beneath the southern office portion of the building were exposed during RAM activities for RTN 3-23606 associated with building demolition, performed under oversight by Sanborn, Head & Associates. The USTs were determined to be oriented with their long axes parallel to Somerville Avenue and with their south walls approximately six (6) feet north of the newly reinstalled municipal sidewalk along the north side of Somerville Avenue. The excavation contractor (Tufts, Inc., of Somerville, Massachusetts) ruptured the tanks while uncovering them. The damaged tanks were observed by the MassDEP during a June 9, 2009, site inspection and were determined by the MassDEP to constitute a threat of a sudden release — thereby constituting a 2-Hour Reporting Condition pursuant to 310 CMR 40.312. Oral notification was provided to the MassDEP, resulting in identification of the site by RTN 3-28548. Limited Immediate Response Action (IRA) activities were verbally approved at the time of notification; and a written IRA Plan was submitted on September 3, 2009.

The June 9, 2009, oral approval for the IRA authorized:

1. Removal and off-site disposal of the tank contents;

2. Cleaning and removal of the tanks;

3. Investigation of soil conditions adjacent to the USTs;

4. Excavation and off-site disposal of up to 20 cubic yards of impacted soil; and

5. Conduct of a geophysical survey of the Property to search for indications of other possible unknown USTs.

The September 3, 2009, written IRA Plan further specified:

6. Excavation of additional impacted soil if initial testing of excavation perimeters indicated that it was warranted;

7. Characterization and off-site disposal at an appropriate facility of excavated gasoline-impacted soil;

8. Backfilling of the excavation with non-impacted formation material; and

9. Installation of a monitoring well in the tank grave area to evaluate whether groundwater was impacted by the release.

During June 10-11, 2009, tank excavation and removals, Sanborn Head & Associates screened soil exposed around the tanks for the presence of VOCs with a PID in accordance with the MassDEP Jar Headspace Method, pursuant to MassDEP Policy #WSC-402-96. PID measurements as high as 320 parts per million by volume (ppmv) were determined, constituting a 72-Hour Reporting Condition pursuant to 310 CMR 40.0313(2). The elevated PID determination was reported to the MassDEP, which concluded that the PID determination documented the same release as the original threat; so a new Release Tracking Number was not assigned.

As documented in the written IRA Plan, the contents of the gasoline USTs were pumped using a vacuum truck on June 9, 2009, under the oversight of Sanborn Head & Associates. Approximately 495 gallons of gasoline and water were transported to Global Companies, LLC, in Albany, New York, for treatment and disposal. On June 10-11, 2009, the two gasoline USTs were cleaned by Removal Specialists of Lynn, Massachusetts, and transported to the State-licensed tank yard of Turner Trucking and Salvage of Lynn, Massachusetts, for disposal. Unpumpable fluids in the tanks were transferred by Removal Specialists to two 55-gallon drums provided by Tufts, Inc., for subsequent disposal. An additional drum was to used to contain personal protective equipment (PPE) contaminated during cleaning of the tanks. Under Action Environmental Boston oversight, the drums were transported by CycleChem to its affiliated General Chemical Corporation facility in Framingham, Massachusetts, on August 25, 2011. Subsequent testing of drum contents at the facility identified unexpected concentrations of PCBs in the gasoline wastes (9.8-11.5 ppm). Based on the absence of detected PCBs in other wastes and source-material samples, the material was determined not be regulated by the Toxic Substance Control Act (TSCA). Based on the results of wipe testing of the interior walls of the PPE drum by General Chemical Corporation, the PCBs were attributed to reuse of contaminated drums (provided by UST-removal contractor Tufts, Inc.) and not to local contaminant sources.

Based on PID measurements performed by Sanborn, Head & Associates, soil that appeared to be gasoline-impacted was excavated by Tufts, Inc., and placed on and covered by polyethylene sheeting and then transferred to a roll-off container provided by Removal Specialists. A composite sample of the gasoline-impacted soil was collected by Sanborn, Head & Associates on June 12, 2009, for waste characterization (identified as "Southern Gas Tank Solids" in Alpha Analytical Report L0907777, see ***Appendix C***), with no detectable PCBs identified. On August 31, 2009, the gasoline-impacted soil (14.49 tons) was transported by Removal Specialists to Aggregate Recycling Corporation of Eliot, Maine, for disposal.

Following excavation, soil samples were collected by Sanborn, Head & Associates from tankbed walls and floor to confirm that impacted soils had been adequately removed. Laboratory analytical reports for soil sample analysis of Volatile Petroleum Hydrocarbon (VPH) and Extractable Petroleum Hydrocarbon (EPH) fractions and targets were included in the IRA Plan (Alpha Analytical Report L0907709 in ***Appendix C***), but data evaluation was not performed at the time. Sanborn Head & Associates subsequent data review determined that impacted soil had been adequately removed. At Sanborn, Head & Associates' request, Removal Specialists backfilled the excavation with unimpacted formation materials.

The analytical data for the initial tankbed closure soil samples collected by Sanborn Head & Associates identified no VPH, Target VOC, EPH, or Target PAHs at concentrations exceeding applicable MCP Method 1 Risk Criteria, as summarized in ***Table 1***, with sample locations depicted on ***Figure 4***. All gasoline- and diesel-indicator contaminants in these soil closure samples were determined to be present at concentrations less than Method 1 Soil S-1 Risk Criteria for a

Groundwater GW-2/3 setting, except the soil sample from the south excavation wall of the southwest UST. Because this wall was excavated beneath the adjoining paved sidewalk, Soil S-3 Risk Criteria are applicable, which the soil sample did not exceed.

On February 18, 2010, Bronson Drilling of Cambridge, Massachusetts, installed a 16-foot deep boring in the former tankbed (AE-103 on ***Figure 6***) under the oversight of Action Environmental Boston. Encountered soils were stratigraphically described and screened in the field for the presence of VOCs using a PID in accordance with the MassDEP Jar Headspace Method, as documented on the boring logs in ***Appendix A***. No detectable VOCs were identified during PID screening. Soil from the surface exposure at the Site (0-3 feet) was analyzed for EPH and Target PAHs and RCRA 8 Metals to verify that the locally derived "formation" backfill was not impacted from other Property activities (see March 2010, New England Testing Laboratory Analytical Reports V0219-20 and V0219-20A in ***Appendix C***). No exceedances of MCP Soil S-1 Reportable Concentrations were identified. Boring AE-103 was converted to a monitoring well, and an additional eight borings/monitoring wells were installed elsewhere on the Property.

On January 19, 2011, Bronson Drilling Company under the oversight of Action Environmental Boston collected new push-probe soil samples from the approximate locations of each of the sidewall and floor samples previously collected from the tankbed by Sanborn, Head & Associates (see ***Figure 6***). A composite soil sample from the sidewall sample locations and a composite soil sample from the tankbed floor sample locations were submitted to New England Testing Laboratory for analysis of PCBs (see Laboratory Report W0125-31 in ***Appendix C***). No PCBs were identified in either sample above the analytical method lower detection limit — consistent with the conclusion that the PCBs detected in the drummed gasoline were attributable to reused contaminated drums.

Various environmental consultants installed 20-foot borings GP-5, GP-4, and SH-7 nearby on the Property to the Site, as documented in Action Environmental Boston's June 9, 2010, Phase I Initial Site Investigation Report relative to the Site. These borings serve to define Property conditions near but outside the Site. Soil samples collected from the 8-12 foot depth in November 13, 2002, Rizzo Associates boring GP-4; the 4-8 foot depth in November 13, 2002, Rizzo Associates boring GP-5; and the 3-4 foot depth in September 24, 2003, Sanborn, Head & Associates boring SH-7 also were identified to contain no MCP Soil S-1 Reportable Concentrations of VPH, EPH, or their Targets (***Table 1***).

On March 3, 2010; June 9, 2010; September 9, 2010; and February 4, 2011, Action Environmental Boston sampled monitoring well AE-103 and other existing monitoring wells at the Property using modified U.S. Environmental Protection Agency (USEPA) low-flow groundwater sampling protocols. The groundwater samples were analyzed by New England Testing Laboratory for VPH and EPH and their Targets, with laboratory analytical reports included in ***Appendix C***. No contaminant concentrations have been identified in Site groundwater above analytical method lower detection limits (***Table 2***) — indicating that Site groundwater has not been impacted by the gasoline release.

On March 2, 2010, and March 5, 2010, Radar Solutions International conducted ground-penetrating radar (GPR), electromagnetic induction, and magnetometer surveys were performed across the Site and across the remainder of the Property (***Appendix D***). No magnetic or radar anomalies were identified in the vicinity of the Site that could indicate an unknown additional UST or similar subsurface structure.

On August 7, 2009, the MassDEP issued an Administrative Consent Order with Penalty (ACOP) and Notice of Noncompliance (NON) to World 115 Nominee Trust relative to the Site (and additional RTNs 3-23606 and 3-28545) for failure to make timely MCP submittals. A revised response schedule was agreed upon in December 2009, setting the following requirements for the Site:

- By January 3, 2010, submit an IRA Status Report relative to RTN 3-28548 and additional IRA Status Reports every six months thereafter until an IRA Completion Report is submitted; and

- By June 9, 2010, submit a Phase I Report and Tier Classification Submittal relative to RTN 3-28548, unless a RAO Statement, Remedy Operation Status Submittal, or Downgradient Property Status Submittal is submitted.

IRA Status Reports relative to RTN 3-28548 were submitted on December 31, 2009, June 29, 2010, and January 3, 2011 — consistent with ACOP requirements. An IRA Completion Report relative to RTN 3-28548 was submitted on February 24, 2011.

The liquid contents (495 gallons) of the former gasoline USTs were removed by pump truck on June 9, 2009, and disposed at Global Companies, LLC, in Albany, New York, as documented in the IRA Plan. Solids (14.5 tons) removed from the gasoline USTs and impacted soils in the tank beds (based on field screening) were transferred to a roll-off on June 9-10, 2009, and sampled for waste characterization. This materials was transported to Aggregate Recycling Corporation of Eliot, Maine, for disposal, as documented in the IRA Plan. Two 55-gallon drums of unpumpable tank contents and one 55-gallon drum of used personal-protection equipment (tyvek suits, gloves, etc.) were disposed from the Site by Cycle Chem (General Chemical) on August 25, 2010. No other remedial wastes were generated at RTN 3-28548 requiring disposal.

The Phase I Report and Tier Classification Submittal relative to RTN 3-28548 was submitted on June 8, 2010 — consistent with ACOP requirements. ***A Class A-2 RAO was submitted relative to this release on June 6, 2011, which also serves as a Partial RAO for that geographic area of RTN 3-23606.***

5.0 — RISK CHARACTERIZATION

To determine whether or not a Response Action Outcome (RAO) Statement is appropriate for a Disposal Site, a Characterization of the Risk of Harm to Health, Safety, Public Welfare and the Environment (Risk Characterization) must be performed pursuant to 310 CMR 40.0900 to determine as whether or not a Condition of No Significant Risk has been achieved at the site with respect to remaining oil and hazardous material (OHM) impact. To evaluate potential health risks to human and environmental receptors from OHM at the site, human and other receptor profiles relative to exposure to OHM are determined based on current and reasonably foreseeable site uses and activities; and exposure conditions and durations are evaluated for the identified concentrations of potentially harmful OHM in affected media. The Risk Characterization approach that is employed can range from "Screening" Risk Characterizations based on worse-case assumptions, to Method 1 Risk Characterizations based on Standards developed by the MassDEP for soil and groundwater based on conservative exposure assumptions, to Method 2 Risk Characterizations based on modified Method 1 Standards or supplemented Method 1 Standards developed from new risk criteria appropriate to site conditions, and/or to Method 3 Risk Characterizations based on chemical- and site-specific conditions and criteria.

The following Risk Characterization applies to the releases identified by RTN 3-23606, RTN 3-28545, and RTN 3-28546, based on Method 3 Risk Characterization methods. Site Physical Characteristics were previously discussed in ***Section 3.4***. The extent of the releases was discussed previously in ***Section 4.2.1*** (RTN 3-23606), ***Section 4.3.1*** (RTN 3-28545), and ***Section 4.3.2*** (RTN 3-28546).

5.1 — Identification of Site Characteristics Relative to Risk Characterization

The existence of human and environmental receptors at a site, the types of activities performed currently or in the foreseeable future that could result in exposure to the contaminants, and the hazardous characteristics and distributions of the contaminants of concern (COCs) at a site affect risk potential evaluated during a Risk Characterization.

5.1.1 — Contaminants of Concern

The first step in a Risk Characterization is to specify the Contaminants of Concern (COCs) at the site. All chemicals detected at the site should be considered COCs and should be carried through the risk assessment process unless there is a specific and justifiable rationale for dropping the contaminant from the quantitative risk characterization. All OHM detected at a site should be included in the risk assessment unless one of the following conditions is true:

1. The chemicals are present at a low frequency of detection and in low concentrations; or

2. The chemicals are present at levels that are consistent with "background" concentrations for the area, and there is no evidence that their presence is related to activities at the site; or

3. The chemicals are field or laboratory contaminants (MassDEP WSC/ORS 95-141 *Guidance for Disposal Site Risk Characterization*).

Detected OHM in each media are identified in ***Table 1*** (soil) and ***Table 2*** (groundwater). Based on chemical activities involving motor-vehicle repair and fueling, boiler fueling, and cleaning using Stoddard solvent, VPH fractions, VPH Target VOCs, EPH fractions, EPH Target PAHs, conservatively potential for other VOCs, and conservatively potential for lead as a fuel additive were evaluated a potential COCs.

Evaluation indicated that all detected potential contaminants in soil were COCs except lead and other metals analyzed, which were determined to be consistent with local background concentrations and background levels for urban soils containing ash and coal set forth in MassDEP Technical Update 05232002 (*Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil*), see ***Tables 5-8***. Evaluation indicated that all detected potential contaminants in groundwater were COCs.

Environmental fate and transport characteristics of the COCs are outlined below. COCs that are volatile have potential to impact air and must be evaluated for such. COCs that bio-accumulate have the potential to impact any fruits and vegetables which may be grown at the site. COCs that are sorbed and persistent in soil may come in dermal contact or be ingested by receptors. COCs that are soluble and persistent in groundwater may come in dermal contact or be ingested by receptors. Specific COC characteristics follow:

Petroleum Hydrocarbon Compounds of the Following Carbon Fractions:

The petroleum hydrocarbons present at the site are divided into six groups of carbon fractions regarding fate and transport characteristics — Aliphatic Hydrocarbons C_5-C_8, C_9-C_{12}, C_9-C_{18}, and C_{19}-C_{36} and Aromatic Hydrocarbons C_9-C_{10} and C_{11}-C_{22}. These carbon fractions are characterized as follows:

VPH Aliphatic C_5-C_8	Volatile, moderate solubility in water, high mobility in soil, and high leachability to groundwater;
VPH Aliphatic C_9-C_{12}	Volatile, low solubility in water, low mobility in soil, and low leachability to groundwater;
EPH Aliphatic C_9-C_{18}	Volatile, low solubility in water, low mobility in soil, and low leachability to groundwater;

EPH Aliphatic C_{19}-C_{36}	Low volatility, low solubility in water, low mobility in soil, and low leachability to groundwater;
VPH Aromatic C_9-C_{10}	Volatile, moderate solubility in water, moderate mobility in soil, and moderate leachability to groundwater; and
EPH Aromatic C_{11}-C_{22}	Low volatility, moderate solubility in water, moderate mobility in soil, and moderate leachability to groundwater.

All six petroleum hydrocarbon fractions were detected in site soil and groundwater.

VPH Target VOCs

Benzene is mobile in soil and will leach to groundwater and is slightly soluble in groundwater. Benzene does not readily biodegrade in soil and groundwater. Benzene is volatile and will migrate from soil and groundwater to air, where it rapidly disperses. Benzene does not significantly bioaccumulate.

Ethylbenzene is mobile in soil and will leach to groundwater. Ethylbenzene does not readily biodegrade in soil and groundwater. Ethylbenzene is volatile and will migrate from soil and groundwater to air where it rapidly disperses. Ethylbenzene does not significantly bioaccumulate.

Toluene is mobile in soil and will leach to groundwater. Toluene does not readily biodegrade in soil and groundwater. Toluene is volatile and will migrate from soil and groundwater to air, where toluene rapidly disperses. Toluene does not significantly bioaccumulate.

Xylenes include three isomers that are mobile in soil and will leach to groundwater. Xylenes do not readily biodegrade in soil and groundwater. Xylenes are volatile and will migrate from soil and groundwater to air, where xylenes disperse rapidly. Xylenes do not significantly bioaccumulate.
VPH Target VOC methyl tert-butyl ether (MTBE) was not detected in soil above analytical method lower detection limits so is not considered to be a COC in soil. MTBE was detected in two (2) of 69 groundwater samples analyzed, and when detected had a maximum concentration of 1.6 µg/L, just slightly exceeding the analytical method lowest detection limit of 1.0 µg/L. Based on the low frequency and concentration of detection, MTBE also was not considered to be a COC in groundwater.

VPH Target VOC naphthalene also is identified as an EPH Target PAH and is discussed under that section below.

Non-VPH Target VOCs

In addition to VPH Target VOCs, analysis of VOCs by USEPA Method 8260 identified detectable concentrations in soil of Isopropylbenzene, n-Propylbenzene, tert-Butylbenzene, 1,3,5-Trimethylbenzene, 1,2,4-Trimethylbenzene, sec-Butylbenzene, n-Butylbenzene, and p-Isopropylbenzene. Because these contaminants are components of VPH carbon fractions, associated risks and characteristics were not evaluated separately.

Polynuclear Aromatic Hydrocarbons (PAHs)

Naphthalene is mobile in soil and will leach to groundwater. Naphthalene does not readily biodegrade in soil and groundwater. Naphthalene is volatile and will migrate from soil and groundwater to air where it rapidly disperses. Naphthalene does not significantly bioaccumulate.

2-Methylnaphthalene is mobile in soil and will leach to groundwater. 2-Methylnaphthalene does not readily biodegrade in soil and groundwater. 2-Methylnaphthalene is volatile and will migrate from soil and groundwater to air where it rapidly disperses. 2-Methylnaphthalene does not significantly bioaccumulate.

Other PAHs generally are not considered to be mobile in soil or significantly leachable to groundwater, due to their strong binding to soil particles; however, they are slightly soluble in water. When present in groundwater, they can partition to soil and sediment. Only acenaphthene is considered sufficiently volatile to have potential to impact indoor air. These PAHs degrade readily in air by reaction with ozone. The PAHs are persistent in soil under anaerobic conditions but biodegrade readily under aerobic conditions. The PAHs do not significantly bio-accumulate.

All PAHs were detected in soil at the site and thus are considered to be COCs in areas of petroleum releases (RTNs 3-28545, 3-28546, and 3-28548). PAH concentrations in ash- and coal-bearing urban fill at the site, however, were determined to average within MassDEP determined background levels for PAHs and are not considered to be COCs (see ***Table 7***).

Metals

Detectable concentrations of Arsenic, Barium, Chromium, Copper, Lead, Mercury, Nickel, and Zinc were identified in soil at the site. However, metal concentrations were determined to be consistent with MassDEP-derived background levels; so the above metals were not considered to be COCs. It also is noted that the detected metal concentrations are all below their applicable Method 1 Soil S-1 GW-2/3 Risk Criteria.

Asbestos

Fragments of asbestos-containing floor tile were identified in an approximately 2,160-square-foot surficial soil area overlapping the northern portions of RTN 3-28545 and RTN 3-28546. Following partial abatement, approximately 14 cubic yards of visually asbestos-impacted soil remains, horizontally boxed within the remnants of concrete foundation piers and covered by a layer of clean soil. Asbestos is considered to be a COC only within the identified area. Visual inspection of the remainder of the Property by HUB Testing Laboratory identified no additional indications of asbestos. Because the asbestos is bound in fragments of floor tile, it is considered to be non-mobile unless the fragments are crushed allowing for suspension of asbestos fibers to air. The asbestos-containing floor tile also is isolated by a layer of clean soil.

5.1.2 — Identification of Exposure Point Concentrations

An Exposure Point is a point or area where a human or environmental receptor has the potential to be exposed to the identified COCs. Separate exposure points must be defined for each impacted media. Potential for two media — soil and groundwater.

Pursuant to 310 CMR 40.0926, the Exposure Point Concentration (EPC) should represent a conservative average of the concentrations to which the individual may be exposed over the exposure period at the exposure point. Identified Exposure Points and associated COC EPCs are discussed below.

5.1.2.1 — Identification of EPCs at the Portion of the Site Identified by RTN 3-28545 and RTN 3-28546

Soil impact from the releases associated with the former hydraulic oil UST, the former Stoddard solvent UST, and residual impact from other USTs addressed under the RAO for RTN 3-4350 is present beneath the urban fill horizon greater than three feet below grade and principally 6-15 feet below grade. EPCs were calculated based on the average concentration of each COC in impacted soil, as tabulated in ***Table 6***.

Groundwater impact from the releases associated with the former hydraulic oil UST, the former Stoddard solvent UST, and residual impact from other USTs addressed under the RAO for RTN 3-4350 is identified on ***Table 2***. EPCs in groundwater were calculated based on the maximum concentration of each COC in groundwater from within the combined boundaries of RTN 3-28545 and RTN 3-28546, as identified in ***Table 10***.

5.1.2.2 — Identification of EPCs in Urban Fill Associated with RTN 3-23606

Contaminant concentrations associated with urban fill across the entire Property and site (RTN 3-23606) are summarized in ***Table 7***. EPCs in soil were calculated on the average concentration of each COC.

5.1.2.3 — Identification of EPCs in Native Soil Associated with RTN 3-23606 (Outside the Boundaries of RTN 3-28545 and RTN 3-28546)

Contaminant concentrations associated with native soil across the entire Property and site (RTN 3-23606) exclusive of that within the boundaries of encompassed RTN 3-28545 and RTN 3-28546 as previously discussed in Section 5.1.2.1 are summarized in ***Table 8***. EPCs in soil from this horizon were calculated on the average concentration of each COC.

Contaminant concentrations in groundwater at the site outside the boundaries of RTN 3-28545 and encompassing RTN 3-28546 are identified in ***Table 2***. EPCs in groundwater were calculated based on the maximum concentration of each COC in groundwater from that area, as identified in ***Table 10***.

5.1.2.4 — Identification of EPCs in Area of Residual Asbestos-Containing Floor Tile in Soil

The presence of asbestos in soil is considered to constitute a hazard at any concentration. Accordingly, the determined presence is considered to pose a risk that must be eliminated or exposure controlled. The area of such contaminant presence is identified on ***Figure 2***. This condition is being addressed in a separate Partial RAO.

5.1.3 — Identification of Current and Possible Site Activities and Uses

Pursuant to 310 CMR 40.0930, current and reasonably foreseeable site uses and activities that could result in exposure to COC-impacted soil and/or groundwater by human or environmental receptors shall be used to determine MCP-defined Groundwater and Soil Categories and to estimate the nature and magnitude of exposure. The specified site activities and uses apply to the entire site.

Clean Properties considers possible site activities and uses that potentially could result in human exposure to OHM in surface and subsurface soil and groundwater to include:

1. Reasonably foreseeable uses of the Property include commercial (planned), industrial, and residential;

2. Reasonably foreseeable activities on the Property include active and passive recreational activities such as walking, running and digging, landscaping installation and maintenance, and construction and utility work involving digging in soil; and

3. Ingestion of cultivated fruits and vegetables.

The site is not within a drinking water resource area. Therefore, groundwater at the site is not considered to be a reasonably foreseeable source of drinking water.

5.1.4 — Identification of Possible Human Receptors at the Site

Human receptors herein are identified without limitation to current site uses — thereby allowing for unrestricted future site uses, except for the portion of the Property having residual asbestos in soil. An accompanying Activity and Use Limitation is applied to that portion of the Subject Property, precluding activities affording potential for direct contact exposure or generation of dust relative to any human receptor.

Current human receptors at the site include periodic landscaping and maintenance workers. No residential or other occupancy is maintained at the Property at this time.

Proposed re-development of the Property is with a commercial building with mixed retail, commercial office, and multiple-family residential uses (on upper floors). Possible additional future human receptors at the site include residents (children and adults), construction workers involved in possible excavation at the site (including short-term utility workers), and trespassers.

Existing and possible future human receptors with the greatest potential for exposure and the most sensitivity because of duration, intensity, and/or susceptibility are residents (particularly children) and construction workers (because of potential for enhanced direct contact with impacted soil at depth). Accordingly, these receptors are specifically considered under the Risk Characterization.

5.1.5 — Identification of Possible Environmental Receptors at the Site

A Risk Characterization of harm to the environment is based on the site characteristics, receptor and exposure information, and any relevant data collected during the response action being performed. Pursuant to 310 CMR 40.0995(2), the risk of harm to the site biota and habitats is characterized by evaluating ecological parameters using a two-stage approach. In Stage I, the objective is to identify and document conditions that do not warrant a Stage II Risk Characterization, either because of the absence of a potentially significant pathway or because environmental impact is readily apparent. If a potentially significant exposure pathway is indicated, then a Stage II Risk Characterization is warranted.

Although the 1.07-acre Property currently is largely undeveloped and is unused, no significant environmental receptors currently are associated with the Site. No aquatic or wetland habitats occur at the site or in the vicinity of the site, as further confirmed on the MassDEP Priority Resources Map (***Figure 3***). Similarly, the Massachusetts Natural Heritage & Endangered Species Program (NHESP) atlas does not identify any priority or estimated habitats of rare or endangered species in the vicinity of the site. The nearest tract of undeveloped land greater than two acres in size that could constitute a significant terrestrial habitat is 2.92-acre City of Somerville Conway Playground, approximately 108 feet west-southwest of the Property on the south side of Somerville Avenue west of Center Street. This protected open space also is not identified on the MassDEP Priority Resources Map (***Figure 3***) as wetland or NHESP habitat.

Pursuant to 310 CMR 40.0995, four criteria must be met in order to demonstrate that a Condition of No Significant Risk exists for the environment:

1. No physical evidence exists of a continuing release of OHM at or from the disposal site to surface waters and/or wetlands which significantly affects environmental receptors; and

2. No evidence exists of biologically significant harm known or believed to be associated with current or foreseeable future exposure of wildlife, fish, shellfish, or other aquatic biota to OHM at or from the site; and

3. Concentrations of OHM at or from the disposal site do not and are not likely to exceed Massachusetts Surface Water Quality Standards at current and reasonably foreseeable exposure points; and

4. No indication exists of the potential for biologically significant harm to environmental receptors, considering their location and the fate and transport characteristics of the OHM at or from the site, currently or for any foreseeable period of time.

As demonstrated above, the Stage I screening confirmed that all four criteria are met; so a Stage II quantitative environmental risk characterization is not required.

5.1.6 — Identification of Applicable Groundwater Categories at the Site

Pursuant to 310 CMR 40.0932(1), a determination must be made as to which Groundwater Categories (GW-1, GW-2, and GW-3) apply to the Site. The categories apply to three types of possible human exposure to groundwater:

GW-1 = Ingestion as drinking water,
GW-2 = Inhalation of vapors generated from COC sources, and
GW-3 = Exposure to surface water receiving COC discharges.

Groundwater Category GW-1 does not apply to the site because:

- According to the City of Somerville, no private water-supply wells are known to exist within 500 feet of the site that were in use at the time of notification and were installed in conformance with any applicable laws, by-laws, or regulations;

- Groundwater at the site is not in a Zone II Wellhead Protection Area, an Interim Wellhead Protection Area, a Zone A of a Class A Water Body, or a Potentially Productive Aquifer, as identified on the MassDEP Priority Resources Map (***Figure 3***); and

- The site is less than 500 feet from a public water distribution system.

Pursuant to 310 CMR 40.0932(6), ***Groundwater Category GW-2 is considered to apply to portions of the site lying within 30 feet of occupied commercial and residential buildings on adjoining properties***, because the average annual depth to groundwater at the site is less than 15 feet below grade.

Pursuant to 310 CMR 40.0932(2), ***Groundwater Category GW-3 applies to the site*** because groundwater everywhere in the Commonwealth of Massachusetts is considered to constitute a potential source of discharge to surface water.

5.1.7 — Identification of Applicable Soil Categories at the Site

Three soil categories (S-1, S-2, and S-3) are used to define the potential for human exposure to soil — based on a matrix of the frequency and intensity of use by adult and child human receptors and the relative accessibility of soil, pursuant to 310 CMR 40.0933:

	RECEPTOR CHARACTERISTICS							
	CHILDREN PRESENT				ADULTS ONLY PRESENT			
	HIGH FREQUENCY		LOW FREQUENCY		HIGH FREQUENCY		LOW FREQUENCY	
Accessibility of Soil	High Intensity	Low Intensity	High Intensity	Low Intensity	High Intensity	Low Intensity	High Intensity	Low Intensity
ACCESSIBLE (SURFICIAL) SOIL 0⇔3 Feet (unpaved)	**CATEGORY S-1**			**S-2**	**S-1**	**CATEGORY S-2**		
POTENTIALLY ACCESSIBLE SOIL 3 ⇔ 15 Feet (unpaved) or 0 ⇔ 15 Feet (paved)		**CATEGORY S-2**			**S-2**	**CATEGORY S-3**		
ISOLATED SUB-SURFACE SOILS >15 Feet or under the footprint of a building or permanent structure	**CATEGORY S-3**							

Category S-1 also applies to any accessible soil where the current or reasonably foreseeable use of the soil is for growing fruits and vegetables for human consumption.
Pursuant to 310 CMR 40.0933(9).

Under the Site's current state of disuse, only adult landscaping and maintenance workers and adult and child trespassers are periodically present, both on a low-frequency basis. Because soils are exposed across most of the site, intensities are potentially high. Accordingly, ***Soil Category S-1applies to current Site conditions and uses above 15 feet; and Soil Category S-3 applies to current Site conditions and uses below 15 feet.*** The exception to that condition is the AUL area, where at least three feet of clean formation soil covers the marker fabric covering the soil that contains remnant asbestos. ***Soil Category S-3 applies to the AUL area.***

Because the remainder of the site is not subject to use restrictions and future single-family residential use is possible (though unlikely considering the setting of the Subject Property within the Central Business District), the presence of children for high intensity use is considered possible in the foreseeable future; so soils at the Site are considered to be potentially accessible to 15 feet below grade. Accordingly, ***Soil Category S-1 applies above 15 feet below grade and Soil Category S-3 applies below 15 feet for possible future uses in areas not covered by the AUL.***

5.1.8 — Identification of Exposure Pathways at the Site

Possible present and future exposure pathways to COCs at the site for adults and/or children potentially residing at the site in the future or adjacent to the site at the present or in the future, construction/site/utility workers performing excavation in the future, and trespassers include:

1. Ingestion of soil and soil aerosols,

2. Dermal absorption from contact with soil, and

3. Inhalation or air or particulate matter impacted by volatile emissions from soil.

The human receptors, their possible exposure scenarios, and which scenarios were evaluated quantitatively by the Risk Characterization are detailed in ***Table 9***.

5.2 — Selection of Risk Characterization Method

Pursuant to 310 CMR 40.0941, three possible methods are allowed for the characterization of risk of harm to health, public welfare, and the environment. The most straight forward and simple method is Method 1, which use promulgated standards to characterize risk posed by the site. Method 2 builds on this approach by continuing to use promulgated standards but adds some site or chemical-specific methodologies. Finally, Method 3 characterizes risk through the application of site-specific methodologies.

A Method 1 Risk Characterization is appropriate for the site because the presence of COCs is limited to soil and groundwater and because potential environmental receptors do not exist; however, Method 1 Risk Criteria do not exist for asbestos and cannot be used for any portion of the site subjected to an AUL.

A Method 2 Risk Characterization is appropriate for the site because the presence of COCs is limited to soil and groundwater and because Risk Criteria could be developed for asbestos; however, Method 2 Risk Criteria could not be used for any portion of the site subjected to an AUL.

A Method 3 Risk Characterization is appropriate for any site (including site areas subjected to an AUL) and has the advantage of considering site-specific conditions.

Pursuant to Table 1, the concentrations of several petroleum hydrocarbon fractions and PAHs in soil at several boring locations exceed applicable Method 1 Soils S-1 Risk Criteria for a Groundwater GW-2/3 setting. Accordingly, a Method 1 Risk Characterization would not determine that a

Condition of No Significant Risk has been achieved unless possible future uses involving high intensity by children, low intensity and high frequency by children, and high intensity and high frequency by adults are restricted such as by implementation of an AUL. Such restrictions may only be evaluated under a Method 3 Risk Characterization.

Accordingly, for the purposes of this RAO evaluation, a Method 3 Risk Assessment was selected for Risk Characterization because of its flexibility to address unique site conditions and to support a Class A-2 or Class A-3 RAO as determined to be appropriate. The Method 3 Risk Assessment was conservatively performed based, in part, on the MassDEP Method 3 ShortForm (Version 08-08).

5.3 — Characterization of Risk of Harm to Health within RTN 3-28545 and RTN 3-28546

To evaluate the Risk of Harm to Health within RTN 3-28545 and RTN 3-28546, a Method 3 Risk Assessment was performed using the MassDEP Method 3 ShortForm, EPCs based on greater of the average soil concentrations identified in ***Table 5*** and ***Table 6***. The ShortForm was used to evaluate exposure risks relative to soil by Residents, Construction Workers, and Trespassers. Exposure to indoor air was not considered applicable because no occupied buildings are present and a Stage I Assessment identified no likely impact to indoor air quality. Exposure to groundwater generally was not considered, because the Property is not located within a drinking-water source area, groundwater concentrations were less than Reportable Concentrations, and depth to groundwater is greater than utility worker exposure depths. Contact and inhalation risks for groundwater were considered for construction workers, who might work at deeper soil horizons.

5.3.1 — Characterization of Harm to Health of Child and Adult Residents within RTN 3-28545 and RTN 3-28546

As indicated in ***Table 9*** for possible future child and adult residents, the exposure point for which quantitative risk characterization is necessary is soil. ***Table 6*** displays the COCs and EPCs for soil. The evaluation of human health risk for this exposure scenario was performed using the MassDEP Short Form for Resident Exposure to soil with input EPCs. Since possible commercial retail or office workers would spend less time at the site, their exposure would be less than that of a resident with resultant lower risk. The output of the Short Form is displayed in ***Appendix I***. The cumulative risk values output from this Short Form are listed as follows:

Cumulative Excess Lifetime Cancer Risk (ELCR) = 6E-07
Cumulative Non-Cancer Chronic Hazard Index = 8E-01
Cumulative Non-Cancer Subchronic Hazard Index = 2E-01

No additional applicable or suitably analogous public health standards apply to soils at the site.

Pursuant to 310 CMR 40.0993, since the Cumulative Subchronic and Chronic Non-Cancer Hazard Indices are both not greater than 1.0, the Cumulative ELCR is not greater than one-in-one hundred thousand (1 E-05), and the EPCs do not exceed applicable health standards, a Condition of No Significant Risk exists for this exposure scenario.

5.3.2 — Characterization of Harm to Health of Construction Workers within RTN 3-28545 and RTN 3-28546

As indicated in ***Table 9*** for Construction Workers, the only exposure points for which quantitative risk characterization is necessary are soils and groundwater. ***Table 6*** displays the COCs and EPCs for soil, and ***Table 10*** displays EPCs for groundwater. The evaluation of human health risk for this soil exposure scenario was performed using the MassDEP Short Form for Construction Worker Exposure to soil with input EPCs, with the Short Form output included in ***Appendix I***. The evaluation of human health risk for the groundwater exposure scenario was performed using EPCs identified in ***Table 10***, with Short Form output included in ***Appendix I***. The cumulative risk values output from the combined calculations are as follows:

Cumulative Excess Lifetime Cancer Risk (ELCR) = 3E-08
Hazard Index = 6E-02

No additional applicable or suitably analogous public health standards apply to soils and groundwater at the site.

Pursuant to 310 CMR 40.0993, since the Cumulative Subchronic Non-Cancer Hazard Index is not greater than 1.0, the Cumulative ELCR is not greater than one-in-one hundred thousand (1 E-05), and there are no applicable or suitably analogous public health standards for soil and groundwater at the site, a Condition of No Significant Risk exists for this exposure scenario.

5.3.3 — Characterization of Harm to Health of Site Trespassers within RTN 3-28545 and RTN 3-28546

As indicated in ***Table 9*** for Trespassers, the only exposure point for which quantitative risk characterization is necessary is soils. ***Table 6*** displays the COCs and EPCs for soil. The evaluation of human health risk for this soil exposure scenario was performed using the MassDEP Short Form for Trespasser Exposure to soil with input EPCs, with the Short Form output included in ***Appendix I***. The cumulative risk values output from this Short Form are as follows:

Cumulative Excess Lifetime Cancer Risk (ELCR) = 2E-08
Cumulative Non-Cancer Chronic Hazard Index = 5E-02
Cumulative Non-Cancer Subchronic Hazard Index = 1E-02

No additional applicable or suitably analogous public health standards apply to soils at the site.

Pursuant to 310 CMR 40.0993, since the Cumulative Subchronic and Chronic Non-Cancer Hazard Indices are both not greater than 1.0, the Cumulative ELCR is not greater than one-in-one hundred thousand (1 E-05), and there are no applicable or suitably analogous public health standards for soil at the Site, a Condition of No Significant Risk exists for this exposure scenario.

5.3.4 — Summary of Characterization of Harm to Health of Human Receptors within RTN 3-28545 and RTN 3-28546

As indicated in Table 9, exposures to COCs in various media for residents, trespassers, and construction workers required a quantitative assessment of health risk. As indicated in ***Sections 5.3.1-5.3.3***, there is a Condition of No Significant Risk to Health for site Residents, Commercial/Retail Workers, Trespassers, Utility Workers, and Construction Workers. ***Therefore, a Condition of No Significant Risk of Harm to Health exists at the sites identified by RTN 3-28545 and RTN 3-28546 on the Property.***

5.4 — Characterization of Risk of Harm to Health Associated with Surficial Urban Fill within RTN 3-23606

To evaluate the Risk of Harm to Health associated with surficial urban fill throughout RTN 3-23606, a Method 3 Risk Assessment was performed using the MassDEP Method 3 ShortForm and EPCs based on the average soil concentrations identified in ***Table 7***. PAHs and metals were excluded from COCs in the urban fill based on their conformance with background, as discussed in ***Section 7.0.*** The ShortForm was used to evaluate exposure risks relative to the identified COCs in urban fill soil by Residents, Construction Workers, and Trespassers. Exposure to indoor air was not considered applicable because no occupied buildings are present and a Stage I Assessment identified no likely impact to indoor air quality.

5.4.1 — Characterization of Harm to Health of Child and Adult Residents Associated with Urban Fill Throughout RTN 3-23606

As indicated in ***Table 9*** for possible future child and adult residents, the exposure point for which quantitative risk characterization is necessary is soil. ***Table 7*** displays the COCs and EPCs for soil. The evaluation of human health risk for this exposure scenario was performed using the MassDEP

Short Form for Resident Exposure to soil with input EPCs. Since possible commercial retail or office workers would spend less time at the site, their exposure would be less than that of a resident with resultant lower risk. The output of the Short Form is displayed in ***Appendix J***. The cumulative risk values output from this Short Form are listed as follows:

Cumulative Excess Lifetime Cancer Risk (ELCR) = 2E-09
Cumulative Non-Cancer Chronic Hazard Index = 1E-02
Cumulative Non-Cancer Subchronic Hazard Index = 3E-03

No additional applicable or suitably analogous public health standards apply to soils at the site.

Pursuant to 310 CMR 40.0993, since the Cumulative Subchronic and Chronic Non-Cancer Hazard Indices are both not greater than 1.0, the Cumulative ELCR is not greater than one-in-one hundred thousand (1 E-05), and the EPCs do not exceed applicable health standards, a Condition of No Significant Risk exists for this exposure scenario.

5.4.2 — Characterization of Harm to Health of Construction Workers Associated with Urban Fill Throughout RTN 3-23606

As indicated in ***Table 9*** for Construction Workers, the only exposure points for which quantitative risk characterization is necessary are soils and groundwater. ***Table 7*** displays the COCs and EPCs for soil, and ***Table 10*** displays EPCs for groundwater. The evaluation of human health risk for this soil exposure scenario was performed using the MassDEP Short Form for Construction Worker Exposure to soil with input EPCs, with the Short Form output included in ***Appendix J***. The evaluation of human health risk for the groundwater exposure scenario was performed using EPCs identified in ***Table 10***, with Short Form output included in ***Appendix I***. The cumulative risk values output from the combined calculations are as follows:

Cumulative Excess Lifetime Cancer Risk (ELCR) = 2E-08
Cumulative Non-Cancer Subchronic Hazard Index = 2E-03

No additional applicable or suitably analogous public health standards apply to soils and groundwater at the site.

Pursuant to 310 CMR 40.0993, since the Cumulative Subchronic Non-Cancer Hazard Index is not greater than 1.0, the Cumulative ELCR is not greater than one-in-one hundred thousand (1 E-05), and there are no applicable or suitably analogous public health standards for soil and groundwater at the site, a Condition of No Significant Risk exists for this exposure scenario.

5.4.3 — Characterization of Harm to Health of Site Trespassers Associated with Urban Fill Throughout RTN 3-23606

As indicated in ***Table 9*** for Trespassers, the only exposure point for which quantitative risk characterization is necessary is soils. ***Table 7*** displays the COCs and EPCs for soil. The evaluation of human health risk for this soil exposure scenario was performed using the MassDEP Short Form for Trespasser Exposure to soil with input EPCs, with the Short Form output included in ***Appendix J***. The cumulative risk values output from this Short Form are as follows:

Cumulative Excess Lifetime Cancer Risk (ELCR) = 6E-11
Cumulative Non-Cancer Chronic Hazard Index = 8E-04
Cumulative Non-Cancer Subchronic Hazard Index = 2E-04

No additional applicable or suitably analogous public health standards apply to soils at the site.

Pursuant to 310 CMR 40.0993, since the Cumulative Subchronic and Chronic Non-Cancer Hazard Indices are both not greater than 1.0, the Cumulative ELCR is not greater than one-in-one hundred thousand (1 E-05), and there are no applicable or suitably analogous public health standards for soil at the Site, a Condition of No Significant Risk exists for this exposure scenario.

5.4.4 — Summary of Characterization of Harm to Health of Human Receptors Associated with Urban Fill Throughout RTN 3-23606

As indicated in ***Table 9***, exposures to COCs in various media for residents, trespassers, and construction workers required a quantitative assessment of health risk. As indicated in ***Sections 5.4.1-5.4.3***, there is a Condition of No Significant Risk to Health for site Residents, Commercial/Retail Workers, Trespassers, Utility Workers, and Construction Workers. ***Therefore, a Condition of No Significant Risk of Harm to Health exists relative to exposure to contaminants in urban fill across the site identified by RTN 3-23606.***

5.5 — Characterization of Risk of Harm to Health Associated with Native Soils within RTN 3-23606 Exclusive of RTN 3-28545 and RTN 3-28546

To evaluate the Risk of Harm to Health associated with native soils that underlie surficial urban fill throughout RTN 3-23606 excluding the areas of RTN 3-28545 and RTN 3-28546 discussed separately in ***Section 5.3***, a Method 3 Risk Assessment was performed using the MassDEP Method 3 ShortForm and EPCs based on the average soil concentrations identified in ***Table 8***. The ShortForm was used to evaluate exposure risks relative to the identified COCs in native soil by Residents, Construction

Workers, and Trespassers. Exposure to indoor air was not considered applicable because no occupied buildings are present and a Stage I Assessment identified no likely impact to indoor air quality.

5.5.1 — Characterization of Risk of Harm to Health of Child and Adult Residents Associated with Native Soil at RTN 3-23606 Exclusive of RTN 3-28545 and RTN 3-28546

As indicated in ***Table 9*** for possible future child and adult residents, the exposure point for which quantitative risk characterization is necessary is soil. ***Table 8*** displays the COCs and EPCs for soil. The evaluation of human health risk for this exposure scenario was performed using the MassDEP Short Form for Resident Exposure to soil with input EPCs. Since possible commercial retail or office workers would spend less time at the site, their exposure would be less than that of a resident with resultant lower risk. The output of the Short Form is displayed in ***Appendix K***. The cumulative risk values output from this Short Form are listed as follows:

Cumulative Excess Lifetime Cancer Risk (ELCR) = 8E-07
Cumulative Non-Cancer Chronic Hazard Index = 2E-02
Cumulative Non-Cancer Subchronic Hazard Index = 5E-03

No additional applicable or suitably analogous public health standards apply to soils at the site.

Pursuant to 310 CMR 40.0993, since the Cumulative Subchronic and Chronic Non-Cancer Hazard Indices are both not greater than 1.0, the Cumulative ELCR is not greater than one-in-one hundred thousand (1 E-05), and the EPCs do not exceed applicable health standards, a Condition of No Significant Risk exists for this exposure scenario.

5.5.2 — Characterization of Harm to Health of Construction Workers Associated with Native Soil at RTN 3-23606 Exclusive of RTN 3-28545 and RTN 3-28546

As indicated in ***Table 9*** for Construction Workers, the only exposure points for which quantitative risk characterization is necessary are soils and groundwater. ***Table 8*** displays the COCs and EPCs for soil, and ***Table 10*** displays the COCs and EPCs for groundwater. The evaluation of human health risk for this soil exposure scenario was performed using the MassDEP Short Form for Construction Worker Exposure to soil with input EPCs, with the Short Form output included in ***Appendix J***. The evaluation of human health risk for the groundwater exposure scenario was performed using EPCs identified in ***Table 10***, with Short Form output included in ***Appendix I***. The cumulative risk values output from the combined calculations are as follows:

Cumulative Excess Lifetime Cancer Risk (ELCR) = 2E-08
Cumulative Non-Cancer Subchronic Hazard Index = 1E-03

No additional applicable or suitably analogous public health standards apply to soils and groundwater at the site.

Pursuant to 310 CMR 40.0993, since the Cumulative Subchronic Non-Cancer Hazard Index is not greater than 1.0, the Cumulative ELCR is not greater than one-in-one hundred thousand (1 E-05), and there are no applicable or suitably analogous public health standards for soil and groundwater at the site, a Condition of No Significant Risk exists for this exposure scenario.

5.5.3 — Characterization of Harm to Health of Site Trespassers Associated with Native Soil at RTN 3-23606 Exclusive of RTN 3-28545 and RTN 3-28546

As indicated in ***Table 9*** for Trespassers, the only exposure point for which quantitative risk characterization is necessary is soils. ***Table 8*** displays the COCs and EPCs for soil. The evaluation of human health risk for this soil exposure scenario was performed using the MassDEP Short Form for Trespasser Exposure to soil with input EPCs, with the Short Form output included in ***Appendix J***. The cumulative risk values output from this Short Form are as follows:

Cumulative Excess Lifetime Cancer Risk (ELCR) = 3E-08
Cumulative Non-Cancer Chronic Hazard Index = 1E-03
Cumulative Non-Cancer Subchronic Hazard Index = 3E-04

No additional applicable or suitably analogous public health standards apply to soils at the site.

Pursuant to 310 CMR 40.0993, since the Cumulative Subchronic and Chronic Non-Cancer Hazard Indices are both not greater than 1.0, the Cumulative ELCR is not greater than one-in-one hundred thousand (1 E-05), and there are no applicable or suitably analogous public health standards for soil at the Site, a Condition of No Significant Risk exists for this exposure scenario.

5.5.4 — Summary of Characterization of Harm to Health of Human Receptors Associated with Native Soil at RTN 3-23606 Excluding RTN 3-28545 and RTN 3-28546

As indicated in ***Table 9***, exposures to COCs in various media for residents, trespassers, and construction workers required a quantitative assessment of health risk. As indicated in ***Sections 5.5.1-5.5.3***, there is a Condition of No Significant Risk to Health for site Residents, Commercial/Retail Workers, Trespassers, Utility Workers, and Construction Workers. ***Therefore,***

a Condition of No Significant Risk of Harm to Health exists relative to exposure to contaminants in native soils at the site identified by RTN 3-23606 exclusive of within RTN 3-28545 and RTN 3-28546, which were evaluated separately in Sections 5.3.1-5.3.4.

5.6 — Characterization of Risk of Harm to Health Associated with Asbestos-Containing Soil Area Subject to Activity and Use Limitations (AUL)

During initial response actions associated with RTN 3-23606 in July 2009 involving building demolition and removal of underground storage tanks that could serve as contaminant sources to site soil and groundwater, an area of surface soil impacted with visible fragments of asbestos-containing floor tile was identified in the northwestern quadrant of the site. Under MassDEP BWP guidance, Certified Asbestos Assessor Susan Boyle of HUB Testing Laboratories visually and microscopically evaluated soil at the site to define the area of asbestos impact to a 40-foot by 50-foot area partially overlapping the sites of RTNs 3-28545 and 3-28546. Sequential removal of identified asbestos-impacted soil by licensed asbestos abatement contractor Atlantic Bay Contracting and re-assessment of soil conditions for the presence of asbestos by HUB Testing Laboratories was a long drawn-out and costly activity that continued into 2011, delaying other planned response actions. Action Environmental Boston, on behalf of World 115 Nominee Trust, queried the MassDEP BWP and BWSC concerning completing asbestos response actions under the MCP.

The MCP Massachusetts Oil and Hazardous Materials List (MOHML) identifies no Reportable Concentration for asbestos but identifies a Reportable Quantity of one pound. Although 50 cubic yards of asbestos-impacted soil were removed from the site by Atlantic Bay Contractors and disposed at accepting out-of-state facilities, Susan Boyle of HUB Testing Laboratories opined that the Reportable Quantity likely was not reached, based on the isolated nature and small size and frequency of floor tile chips and the 3-4% asbestos content of the chips; however, because asbestos analytical results for soil and debris typically were reported as asbestos "present" or "absent," quantitative mass-based determinations are gross estimates at best.

Because asbestos response had progressed substantially under the BWP compliance path, because remaining asbestos was no long exposed at surface grade, because material fragments were not in friable condition, and because the asbestos was commingled with other contaminants at a reported site, BWSC advised that separate MCP notification was not required. Because removal had progressed more than three feet below the original grade and proposed development grades, feasibility analyses are underway to evaluate addressing the remaining asbestos-containing soil under an Activity and Use Limitation (AUL). For temporary control, the impacted soil area was covered by clean formation soil. Future development will include paving the entire area as part of a parking lot (see ***Figure 2***). An RAO relative to this condition is being prepared separately, potentially based on an AUL.

A Risk Characterization for this excluded area has not been completed at this time.

5.7 — Characterization of Risk to Public Welfare

Pursuant to 310 CMR 40.0994, two purposes exist for conducting a characterization of risk to public welfare:

1. To identify and evaluate nuisance conditions which may be localized, and
2. To identify and evaluate significant community effects.

The characterization of risk to public welfare shall consider effects which are or may result from the presence of residual contamination or the implementation of a proposed remedial alternative. Pursuant to 310 CMR 40.0994, a level of no significant risk of harm to public welfare has been achieved because:

1. No nuisance conditions exist or will result from the OHM release at the Site, because:
    a. The breathing zone of ambient and indoor air are currently and will, in the reasonably foreseeable future, remain free from persistent, noxious odors since VOCs in soil and groundwater are not significantly migrating to ambient or indoor air;
    b. There is accessible drinking water that is and will, in the foreseeable future, remain free from noxious taste and odors, since drinking water is supplied by pipe from a municipal water supply to the site; and
    c. Livestock are and will remain, in the reasonably foreseeable future, free from harmful effects. City bylaws preclude the raising of livestock. No specific evaluation of risk to livestock is required, since it is reasonable to conclude that the human health and environmental risk characterizations conducted for the site also are protective of livestock exposures.
2. The City of Somerville is the only community that is currently or in the reasonably foreseeable future will be affected by the release and will not experience significant adverse impacts including the existence of nuisance conditions, loss of active or passive property

use(s), and any non-pecuniary effects that may accrue due to the degradation of public resources directly attributable to the release or threat of release of OHM at the site; and

3. As indicated in Table 1 and Table 2, no maximum (and, by definition, average) concentrations of COCs in soil and groundwater at the site exceed respective MCP Upper Concentration Limits (UCLs) set forth in 310 CMR 40.0996.

Therefore, pursuant to the MCP, a Condition of No Significant Risk of Harm to Public Welfare has been achieved at the site for the current and reasonably foreseeable site activities and uses.

5.8 — Characterization of Risk to the Environment

A Method 3 characterization of risk to the environment involves a two-stage approach. The Stage I Environmental Screening determines whether or not a Stage II Environmental Risk Characterization is required. The Stage II Environmental Risk Characterization determines whether there is an indication of the potential for ecological harm and/or evidence of ecological harm. If the Stage I Screening documents conditions that do not warrant a Stage II Characterization, then a Stage II Characterization need not be performed.

The purpose of the Stage I Environmental Screening is to evaluate whether there is current or potential future exposure of Environmental Receptors to contamination at or from the disposal site. Soil impacts at the site are limited to petroleum-related compounds (and asbestos in the AUL Area); and the absence of groundwater impact above Method 1 Risk Criteria indicates that contaminants are adsorbed to the soil and are not leaching actively, substantially limiting potential exposure by downgradient aquatic receptors. As indicated in ***Section 3.3*** and ***Section 3.4***, since the nearest hydrologically downgradient surface water body is the Charles River approximately 1.16 miles southwest of the site, COCs from the site are not migrating to that surface water body in concentrations above background levels due to dispersion. Therefore, there are no exposure pathways from the site to aquatic receptors. The current undeveloped state of the Site and Property does not restrict exposure to Site soils by terrestrial organisms (except under the south-bounding municipal sidewalk and as provided by the fencing bordering the Property). Site vegetation consists of volunteer growth of weeds and grasses, which is controlled by periodic cutting by lawn contractors employed by the Property Owner. The Property formerly was fully developed with buildings and pavement prior to demolition activities in 2009; and proposed re-development involves nearly complete coverage with buildings and/or associated pavement. No habitat (wetlands, protected open space, or NHESP habitat) exists at or adjacent to the Property. As indicated in ***Section 3.3***, there are no other environmental receptors in the vicinity of the site, so there are no other exposure pathways to environmental receptors.

The above Stage I Environmental Screening has determined that no current or potential future environmental receptor exposure is identified at the site. Therefore, pursuant to 310 CMR 40.0095(3)(2), a Stage II Environmental Risk Characterization is not required. Furthermore, as indicated in ***Table 1*** and ***Table 2***, no maximum (and, by definition, average) concentrations of COCs in soil and groundwater at the site exceed their respective MCP UCLs. ***Therefore, a Condition of No Significant Risk to the Environment exists at the site for the present and future.***

5.9 — Characterization of Risk of Harm to Safety

The risk of harm to safety was characterized for this site and Property based upon information collected during the assessment and remediation activities. Pursuant to 310 CMR 40.0960, the MCP identifies several criteria that need to be considered in evaluating safety, including:

- The presence of rusted or corroded drums or containers, open pits, lagoons, or other dangerous structures [310 CMR 40.0960(3)(a)];
- The threat of fire or explosion [310 CMR 40.0960(3)(b)]; and
- Uncontained material that exhibits the characteristics of corrosivity, reactivity, or flammability, as described in 310 CMR40.0347.

No such materials or threats were observed or have been identified at the site or Property. Geophysical surveys identified no buried metallic objects in the area likely to correspond to drums, tanks, or other large containers. In addition, remediation wastes have been removed from the Site; the excavations have been backfilled; and the Property is surrounded by a six-foot high security fence. The security fence will remain until Property redevelopment is finished.

In addition, comparisons of current and reasonably foreseeable conditions at the site to applicable safety standards (such as OSHA regulations and municipal Fire Code) indicate no current risk of harm to safety at the site. ***Accordingly, a Condition of No Significant Risk of Harm to Safety exists at the site.***

5.10 — Summary and Conclusions of the Risk Characterization

Multiple COCs associated with the release of petroleum from underground storage tanks for Stoddard solvent, fuel oil, and gasoline to soil and groundwater were evaluated for risk of harm to health, safety, public welfare, and the environment. A quantitative Method 3 Risk Characterization of the site indicates that No Significant Risk to human health for workers, possible future residents, utility workers, construction workers, and trespassers exists a the site.

Asbestos identified in a defined soil area has been isolated from contact or dust generation. This approximately 1,200 square foot area is excluded from the Site of RTN 3-23606 for the purposes of this Partial RAO and will be addressed under a separate RAO submittal.

The Risk Characterization also documents that there is No Significant Risk to Public Welfare, Safety, or the Environment.

Therefore, a Condition of No Significant Risk of Harm as defined by the MCP (310 CMR 40.0000) has been attained at the site.

6.0 — ACHIEVEMENT OF A PERMANENT SOLUTION

Pursuant to 310 CMR 40.0006, a Permanent Solution has been achieved at the site because measures were implemented that attained a level of reduction or control of each COC at the site such that no COC presents a significant risk of damage to health, safety, public welfare, or the environment during any foreseeable period of time.

7.0 — FEASIBILITY OF ACHIEVING OR APPROACHING BACKGROUND

Pursuant to 310 CMR 40.1020, a feasibility evaluation of reducing COC concentrations in soil and groundwater at the site to levels that achieve or approach background must be performed for the site, because a Permanent Solution has been achieved but background concentrations of COCs have not been achieved. This feasibility evaluation follows guidance provided in MassDEP Policy #WSC-04-160 (*Conducting Feasibility Evaluations Under the MCP*).

7.1 — Comparison of EPCs to Background

The MCP defines background as: "those levels of oil and hazardous material that would exist in the absence of the disposal site of concern which are either:

a. Ubiquitous and consistently present in the environment at and in the vicinity of the disposal site of concern; and attributable to geologic or ecological conditions, or atmospheric deposition of industrial process or engine emissions;

b. Attributable to coal ash or wood ash associated with fill material;

c. Releases to groundwater from a public water supply system; or

d. Petroleum residues that are incidental to the normal operation of motor vehicles."

At the site, near-surface soils consist of urban fill impacted by past development/demolition activities and by incorporation of coal and ash from previous fuel sources used at the Property. Because development of the Property has consistently been with increasingly large structures, each stage of development more likely generated excess soil for redistribution at the Property or for off-site disposal as opposed to importing fill from off-site sources. As documented in the May 1, 2010, Phase II Comprehensive Site Assessment relative to RTN 3-23606 (which encompasses the entire Property), laboratory analysis of fill soils at the Property confirmed the common presence of coal and ash and its association with PAHs and metals (see ***Appendix C***). Although not directly related, coal and ash also generally correlated with low-level petroleum hydrocarbon concentrations. Average contaminant concentrations in soils from areas of the Property not impacted by known or suspected releases are summarized in ***Table 7*** and determined to correspond to or approach MassDEP-established background concentrations for urban soil containing ash and coal. A pocket of concentrated ash identified in 3-4 feet below grade in boring SH-6 was disturbed during building demolition and likely dispersed. The ash concentration could not be relocated (see boring AE-225). Accordingly, the PAH and metal concentrations in urban fill were identified as constituting background and are not considered COCs for purposes of site risk characterization.

Background for petroleum hydrocarbons and asbestos in soil and groundwater generally is considered to be non-detectable. Accordingly, detected concentrations of petroleum hydrocarbons are considered to remain above background and must be further evaluated to determine the feasibility of reducing their concentrations to background. The area of remaining asbestos in soil is being evaluated separately and is not considered by this RAO.

7.2 — Feasibility Evaluation Relative to Petroleum-Contaminated Soil and Groundwater

Petroleum concentrations in soil and groundwater have been reduced by source removal but have not been reduced to background levels, generally considered to be non-detectable.

Pursuant to Table 9-1 of MassDEP Policy #WSC-04-160, the petroleum hydrocarbon COCs at the site are considered Degradable Contaminants. Pursuant to Section 9.3.2.3 of MassDEP Policy #WSC-04-160, "it is DEP's position that achieving or approaching background can be deemed infeasible for degradable/nonpersistent contaminants regardless of media classification, except for small quantities of petroleum-contaminated soil considered accessible for remediation as described in Section 9.3.1. The benefits of additional remedial actions to achieve or approach background for degradable/nonpersistent contaminants would be considered insufficient to justify the costs of those actions." Petroleum-contaminated soil at the site does not meet the exclusion for infeasibility in Section 9.3.1, because petroleum-impacted soil remaining at the site generally is located greater than three feet below the ground surface (typically 6-15 feet below grade). ***Therefore, pursuant to MassDEP Policy #WSC-04-160, this feasibility analysis indicates that reducing all COC concentrations in soil and groundwater at the site to meet or approach background levels is Infeasible.***

These documented conditions meet Presumptive Certainty under MassDEP Policy #WSC-04-160.

8.0 — DATA USABILITY ASSESSMENT AND DATA REPRESENTATIVENESS EVALUATION

Pursuant to 310 CMR 40.1056(2)(k), all Class A, B, or C Response Action Outcomes are required to provide a Data Usability Assessment documenting that the data relied upon are scientifically valid and defensible and of sufficient level of precision, accuracy, and completeness to support the RAO and to provide a Data Representativeness Evaluation, documenting the adequacy of the spatial and temporal data sets to support the RAO.

8.1 — Data Representativeness

The Data Representativeness is a demonstration that spatial and temporal data sets are adequate to support the RAO. Each of the Data Representativeness elements identified in MassDEP Policy #WSC-07-350 is evaluated following.

A petroleum release identified by RTN 3-4350 was reported on June 8, 1993, by Rizzo Associates on behalf of John Solomon International. The release was attributed to discontinued underground storage tank use west of the building's loading dock area (including gasoline, fuel oil, and Stoddard solvent tanks), with site boundaries identified on ***Figure 2***. The average soil concentrations identified by Rizzo Associates for the site, which covers that portion of current site RTN 3-28546 that was not under the building, are tabulated on ***Table 6*** for comparative purposes and generally conform to currently indicated conditions. Based on a Method 3 Risk Characterization, Rizzo Associates filed a Class A2 RAO for the release on December 8, 1995. Conditions identified within the former boundaries by RTN 3-4350 during the current investigations generally conform to the previously identified EPCs.

During several due diligence investigations preparatory to sale of the Property this contamination was re-identified, determined to extend beyond original boundaries, and related to other potential release conditions such as urban fill. Much of the Property was inaccessible for investigation until demolition of the former industrial building in 2009. Soil investigations were conducted in ten stages between 1990 and 2011. Groundwater was sampled and tested in 12 episodes over the same timeframe, including seasonal sampling in 2010. Historically, a total of 50 borings and five (5) monitoring wells were installed at the site, with 40 of the borings converted to monitoring wells and sampled. Soil sampling was performed from the surficial urban fill and underlying native outwash sands and silty sands. Tables 5-7 identify contaminants evaluated as potential COCs, the number of samples collected, and concentration ranges and averages. Vertical and horizontal sampling frequency is considered to be appropriate for the size of the Property and its stratigraphy, with concentrations in areas of identified or suspected contamination.

Response actions for RTN 3-23606, RTN 3-28545, and RTN 3-28546 from discovery through December 2009 were performed by Sanborn Head & Associates under the guidance of LSP Duncan Woods. Response actions from January 2010 through March 2011 were performed by Action Environmental Boston under the guidance of LSP Glenn A. Carlson. Since May 2011, response actions have been performed by Clean Properties under the guidance of LSP Marcia J. Berger. Principal Hydrogeologist Robert Houghton was Project Manager for both Action Environmental Boston and Clean Properties, providing a degree of project continuity since January 2010.

Laboratory analyses contracted by Rizzo Associates for site RTN 3-4350 and laboratory analyses contracted by Sanborn Head & Associates were performed by Alpha Laboratories of Westfield, Massachusetts. Laboratory analyses contracted by Action Environmental Boston were performed by New England Testing (NET) Laboratories of North Providence, Rhode Island. Both laboratories have met the requirements for drinking-water testing certifications by the MassDEP. No distinct biases were identified between laboratories for the analyses of the COCs.

8.1.1 — Selection of COCs Based on Conceptual Site Model

Based on the Conceptual Site Models presented in ***Section 4.3***, the release at the Site of RTN 3-28545 was of virgin hydraulic oil, that at the Site of RTN 3-28546 was of virgin Stoddard solvent, fuel oil, and gasoline, and that associated with other areas of RTN 3-23606 was of unknown petroleum products. For Risk Characterization purposes, VPH fractions and Target VOCs and EPH fractions and Target PAHs were considered to be the appropriate COCs in soil and groundwater. Limited additional assessment evaluated other VOCs by USEPA Method 8260, Metals, PCBs, and waste disposal criteria, without identification of additional contaminants warranting inclusion as COCs. Based on the totality of this testing, no conditions associated with historic Site uses, hydrogeologic setting, and field observations warrant further evaluation for potential COCs.

No petroleum products were detected in the monitoring wells at the site during any of groundwater sampling events (some of which were performed on a quarterly/seasonal basis) using modified USEPA low-flow sampling protocols. Monitoring wells are spatially distributed across the entire site but are concentrated in the vicinity of known releases. Because liquid contaminants like petroleum products tend to move predominantly vertically in the unsaturated zone and because no confining strata were identified at the site that could substantially alter that migration trend, that monitoring well distribution is considered to be appropriate for evaluating groundwater at the site. The multiple groundwater samples demonstrate that seasonal fluctuations did not demonstrate substantially variations in groundwater quality. Because groundwater contaminant concentrations were less than applicable Reportable Concentrations[5], the data indicates that groundwater is not a media of significant concern at the site; however, groundwater COC concentrations were included in Risk Characterizations for Construction Worker/Utility Worker exposures.

8.1.2 — Use of Field Screening Data and Sampling Rationale

As documented in the previous Phase Reports and IRA/RAM Status Reports relative to the site, encountered soils from borings and test pits were screened in the field for the presence of VOCs using a photoionization detector (PID) equipped with a 10.6-eV lamp in accordance with the MassDEP Jar Headspace Method. For screening of soils, the PID was calibrated in the field using isobutylene in accordance with manufacturer's instructions, with the PID response factor set to respond quantitatively as if all VOCs were benzene per MassDEP Policy #WSC-02-411 (*Implementation of the MADEP VPH/EPH Approach*). Also pursuant to MassDEP Policy #WSC-02-411, screening of soil gas for Stage I Vapor Intrusion Potential Estimation was performed with the PID response factor unchanged from that appropriate for the isobutylene calibration.

When disposal characterization of the drummed unpumpable tank contents suggested the presence of PCBs, Action Environmental Boston evaluated other waste disposal characterization data from across the site and determined that no previous indications of PCBs were present in site soils or wastes. Subsequent wipe sample testing of the interior of the PPE drum by General Chemical indicated the presence of PCBs, indicating that the used drums provided by the contractor (Tufts,

---

[5] The concentration of VPH C9-C12 Aliphatic Hydrocarbons in groundwater sampled from monitoring well AE-220 on February 15, 2010, was determined to exceed the applicable GW-2 Reportable Concentration and Method 1 GW-2 Risk Criteria; however, the presence of substantial suspended clay and silt in this first sample from the monitoring well is considered to have invalidated the data. Subsequent re-development of the monitoring well and resampling of the groundwater from the monitoring well identified no detectable VPH or EPH concentrations, indicating that the hydrocarbon was substantially bound to the soil particulates and confirming the invalidity of the original data.

Inc.) may previously have contained PCB-bearing wastes. Accordingly, the PCBs were not attributed to any of the releases at the site.

In the opinion of Clean Properties, the site sampling plan and assessment scope were sufficient to delineate Site boundaries, identify background, calculate Exposure Point Concentrations, identify Hot Spots (if present), identify exposure pathways and receptors, and demonstrate source elimination or control.

All hand soil sampling was performed using stainless-steel trowels or coring devices, with soil transferred directly to sample bottles. For analysis of VPH and VOCs, samples were weighed into pre-weighed 40-milliliter laboratory vials containing methanol and sealed with Teflon septum caps. Vials contained sufficient methanol to cover the soil, pursuant to MassDEP Policy #WSC-99-415 and MassDEP Policy #WSC-02-411. For analysis of EPH, metals, and other non-volatile contaminants, samples were transferred directly into eight-ounce amber-colored glass bottles and sealed with Teflon-lined caps. All sample bottles were placed immediately into coolers and maintained on ice until delivery to the analyzing laboratory.

Sampling equipment was decontaminated between uses with sequential rinses of low-phosphate detergent (Alconox), distilled water, and methanol. No evidence of sample cross-contamination was identified in Clean Properties' review of the analytical data.

8.1.3 — Completeness

Data was evaluated for completeness, and no gaps in the above sampling plan were identified. No critical samples were determined to be missing. No data obtained is considered to be unrepresentative of the Site, excluding PCB testing of drummed unpumpable tank contents as discussed in ***Section 8.1.2***.

8.1.4 — Inconsistency and Uncertainty

The Conceptual Site Model is based on release of petroleum hydrocarbons from several former underground storage tanks that were removed in or before June 2009. Analyses indicated petroleum-indicator VPH fractions and Target VOCs and EPH fractions and Target PAHs. Other detectable contaminants (metals) were determined to be within background levels and not to constitute COCs. Trace concentrations of tetrachloroethene and its degradation products were identified in three groundwater samples from two monitoring wells sampled in 1990 and 1992 by Rizzo Associates and previously evaluated in its RAO for RTN 3-4350. During current investigations, groundwater from 18 site monitoring wells were analyzed for VOCs by USEPA Method 8260 that identified no detectable chlorinated compounds. This discrepancy could be due to elimination of the chlorinated compounds by biodegradation, dispersion, or other means in the intervening ten plus years; differences in analytical capabilities and precision; or other differences in other sampling, preservation, and testing protocols. The data collected by the current investigation is considered to be more representative of present conditions at the site than the previous data; so this inconsistency is not considered to affect the Risk Characterization and its conclusions.

Similarly, the identification of PCBs in the drummed unpumpable tank contents is not considered to indicate a contaminant condition not evaluated by the Risk Characterization. Disposal characterization of the soil taken to Aggregate Recycling Corporation included PCB analysis and identified no detectable concentrations. Similarly liquid tank contents reportedly were screened for chlorinated compounds when received by Global Companies, with no indication of PCBs identified. Wipe testing of the interior of the drum containing used personal-protection equipment by Cycle Chem indicated the presence of PCBs not identified on the equipment, indicating that the used drums provided by the excavation contractor (Tufts Corp.) were contaminated with PCBs from previous uses; and the PCBs were unrelated to the Site release. Accordingly, PCBs were not identified as a Site CoC. Supplemental testing of soil from excavation walls also identified no detectable PCBs.

No other elements of inconsistency or uncertainty were identified at the Site.

8.2 — Evaluation of CAM Compliance

Clean Properties evaluated laboratory analytical reports for consistency with the Compendium of Analytical Methods (CAM). Compliance conditions are summarized in ***Table 11***.

Analytical reports issued by Alpha Analytical Laboratory in prior to 2006 used analytical methods consistent with those adopted by CAM, but the reports lack Laboratory Case Narratives. Accordingly, those reports are considered to be "CAM Non-Compliant" analytical data. Remaining analytical reports are considered to document "CAM Compliant" analytical data.

In its review of the "CAM Non-Compliant" analytical data, Clean Properties identified no quality-control conditions affecting overall accuracy, precision, and/or sensitivity. Laboratory reports documented use of CAM-consistent analytical methods, and all quality-control data were determined for fall within accepted ranges. Accordingly, the data were considered to be appropriate to support the RAO.

In its review of "CAM Compliant analytical data, Clean Properties noted the specific CAM variances identified in ***Table 11***:

Analysis by USEPA Method 8260B of Laboratory Sample L0211837-01 (RIZ-2-GW) documented in Alpha Analytical Report L0211837 was identified in the Summary as being above and/or below the acceptance criteria required for the method; however, the actual analytical data pages identified no such exceedance of the accepted range. Therefore, this data was considered to be CAM Compliant and valid. RIZ-2-GW is not located within the Site, serving as an indicator of nearby conditions on the Property.

Analysis by MassDEP VPH Method of Laboratory Samples L0907709-01 through -10 (SE Gas Tank and SW Gas Tank soil closure samples) were determined to contain soil volumes less than would achieve the recommended 1:1 methanol:soil ratio. This deficiency potentially could result in an underestimation of the concentration of VPH fractions and targets. Because none of the determined concentrations in these samples approached Method 1 Risk Criteria, this deficiency is not considered to have affected significantly RAO conclusions.

Analysis by MassDEP EPH Method of Laboratory Samples L0907709-01 through -11 (SE Gas Tank and SW Gas Tank soil closure samples) were determined to exceed the reproducibility acceptance criteria for Nonane (surrogate for C_9); however, individual recoveries for all other surrogates and duplicates were within acceptance criteria. Because this exceedance would result in a positive bias and because other criteria were consistent with acceptance criteria, this deficiency is not considered to have affected significantly RAO conclusions.

Analysis by MassDEP VPH Method of Laboratory Sample L0907709-06 (SW Gas Tank 2 South Wall) resulted in elevated detection limits due to dilution required by the elevated concentrations of target samples in the sample. Because the RAO was based on maximum EPCs and because this condition would result in a positive bias, this deficiency is not considered to have affected significantly RAO conclusions.

Analysis of waste characterization sample L0907777-02 (Southern Gas Tank Solids) by analytical methods set forth in MassDEP Policy #COMM-97-001 was determined to result in surrogate recoveries with a potentially high bias for bromomethane and a potentially low bias for dichlorofluoromethane, which are considered to be “difficult” analytes by the specified analytical protocols. Because these samples were used to characterize material removed from the Site, this deficiency is not considered to have affected significantly RAO conclusions.

> VOC, VPH, and EPH analyses of soil samples L0309656-03, -07, and -14 through -17 exhibited elevated detection limits due to dilutions required for some compounds. Because this condition likely would result in a positive bias for Risk Characterization purposes based on half of the detection limit, this deficiency is not considered to have affected significantly RAO conclusions.
>
> VOC, VPH, and EPH analyses of soil samples L0308656-17, -18, and -19 were subject to surrogate recoveries biased on the low side of acceptance criteria for chloro-octadecane; however, other surrogate recoveries were within acceptable ranges. Clean Properties does not consider this condition to have affected significantly RAO conclusions.

All other data supporting the RAO is identified as reported appropriately and supported by quality control data consistent with CAM.

9.0 — LSP OPINION AND RAO STATEMENT

In the opinion of Clean Properties, this Report meets the requirements for a RAO Statement set forth in 310 CMR 40.1000.

Based on Method 3 Risk Assessments, a Conditions of No Significant Risk have been identified for the Site identified by RTN 3-28545 and RTN 3-28546 and all of RTN 3-23606 not lying within the area of asbestos in soil. Because soil and source removal have reduced contaminant concentrations at the above-referenced site to a Condition of No Significant Risk without property restrictions (Activity and Use Limitations), a Class A-2 Partial Response Action Outcome (RAO) has been achieved at the site.

The portion of the Site of RTN 3-23606 containing asbestos in soil is excluded from this Partial RAO and will be addressed separately.

All activities identified in this RAO Statement except the Risk Characterizations also were documented in previous MassDEP submittals, certified therein by other LSPs as having been performed in accordance with the MCP.

The seal and signature of the LSP responsible for these RAO Statements, Marcia J. Berger (LSP #4667), are presented through the electronic submittal of accompanying RAO Transmittal Forms (BWSC-104).

If you have any questions regarding this submittal, please feel free to contact us anytime at 978-443-6622.

Very truly yours,
CLEAN PROPERTIES, INC.

Robert Houghton
Principal Hydrogeologist

Marcia J. Berger, PE, LSP
President

cc: Mark Coppola, World 115 Nominee Trust

FIGURES

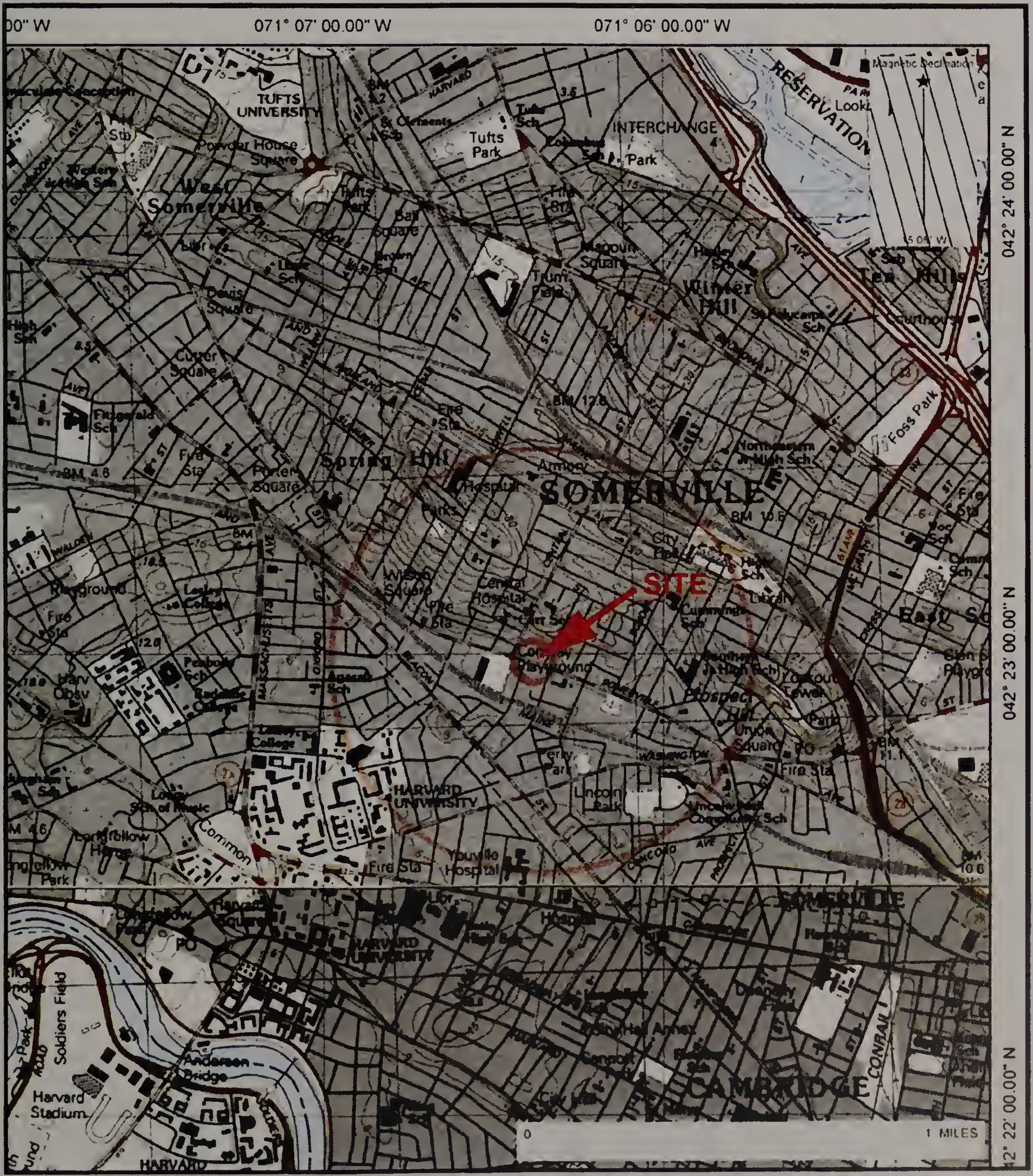
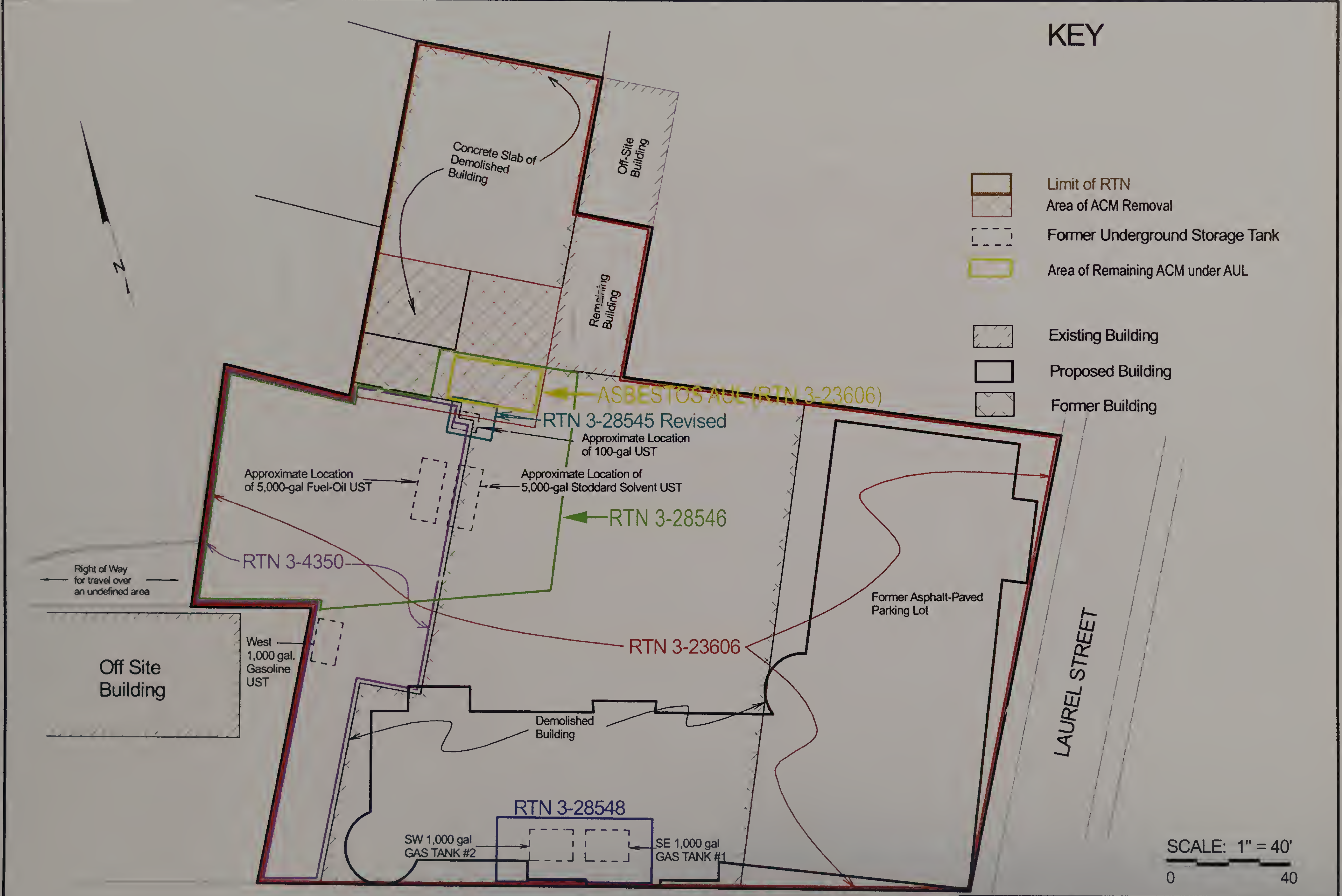


Figure 1. - Locus Map of the vicinity of Disposal Sites 3-23606, 3-28545, 3-28546, and 3-28548 at 515 Somerville Avenue in the City of Somerville, Massachusetts [Shown on parts of U.S. Geological Survey 1985 Boston North (42071-D1-TM-025) and 1987 Boston South (42071-C1-TM-025) metric topographic quadrangles [Scale = 1:25,000; Contour Interval = 3 meters (~10 feet); Orange Circles represent 500-foot and 0.5-mile radii around Sites].


KEY
Limit of RTN
Area of ACM Removal
Former Underground Storage Tank
Area of Remaining ACM under AUL
Existing Building
Proposed Building
Former Building
N
Concrete Slab of Demolished Building
Off-Site Building
Remaining Building
ASBESTOS AUL (RTN 3-23606)
RTN 3-28545 Revised
Approximate Location of 100-gal UST
Approximate Location of 5,000-gal Fuel-Oil UST
Approximate Location of 5,000-gal Stoddard Solvent UST
RTN 3-28546
RTN 3-4350
Right of Way for travel over an undefined area
Off Site Building
West 1,000 gal. Gasoline UST
RTN 3-23606
Former Asphalt-Paved Parking Lot
LAUREL STREET
Demolished Building
RTN 3-28548
SW 1,000 gal GAS TANK #2
SE 1,000 gal GAS TANK #1
Sidewalk
SOMERVILLE AVENUE
SCALE: 1" = 40'
0
40

SITE PLAN

515 Somerville Avenue
Somerville, MA

Figure 2
DWN BY: HS
CKD BY: RH
File: 0659RAOF2

Project 0659
June 2, 2011
June 4, 2010
April 23, 2010

Clean Properties
Environmental Assessment & Cleanup

111 Boston Post Rd.
Suite 211
Sudbury, MA 01776
Phone: 978-443-662

Figure 3. - MassDEP - Bureau of Waste Site Cleanup

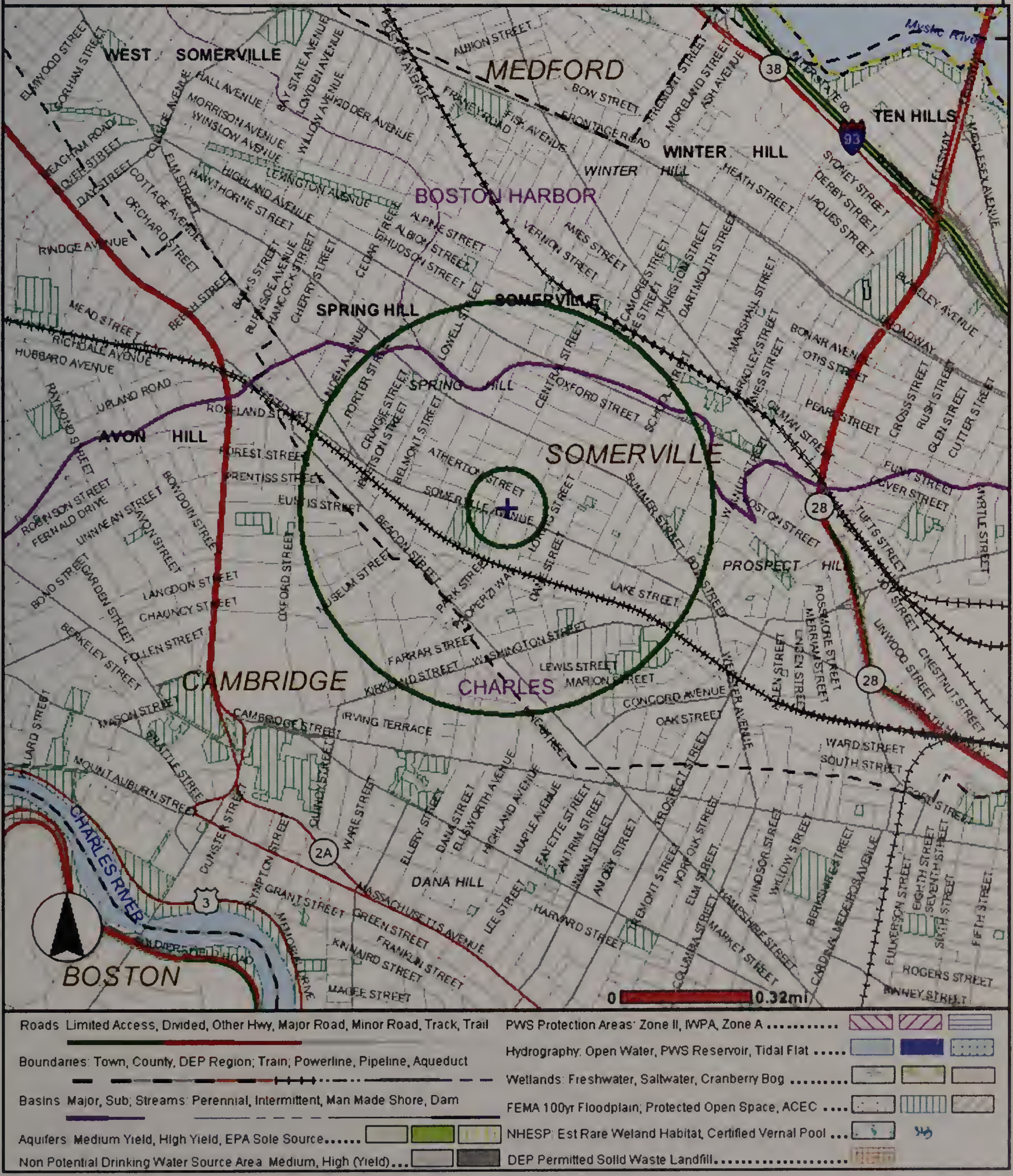
MCP Numerical Ranking System Map: 500 feet & 0.5 Mile Radii

Site Name:
RTN:
NAD83 MA Coordinates:
232436mE, 903740mN

December 29, 2010

The information shown on this map is the best available at the date of printing For more information please refer to www.mass.gov/mgis/massgis.htm

MassDEP
Department of Environmental Protection



Roads Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail

Boundaries: Town, County, DEP Region; Train; Powerline, Pipeline, Aqueduct

Basins Major, Sub; Streams: Perennial, Intermittent, Man Made Shore, Dam

Aquifers Medium Yield, High Yield, EPA Sole Source......

Non Potential Drinking Water Source Area Medium, High (Yield)...

PWS Protection Areas: Zone II, IWPA, Zone A ....

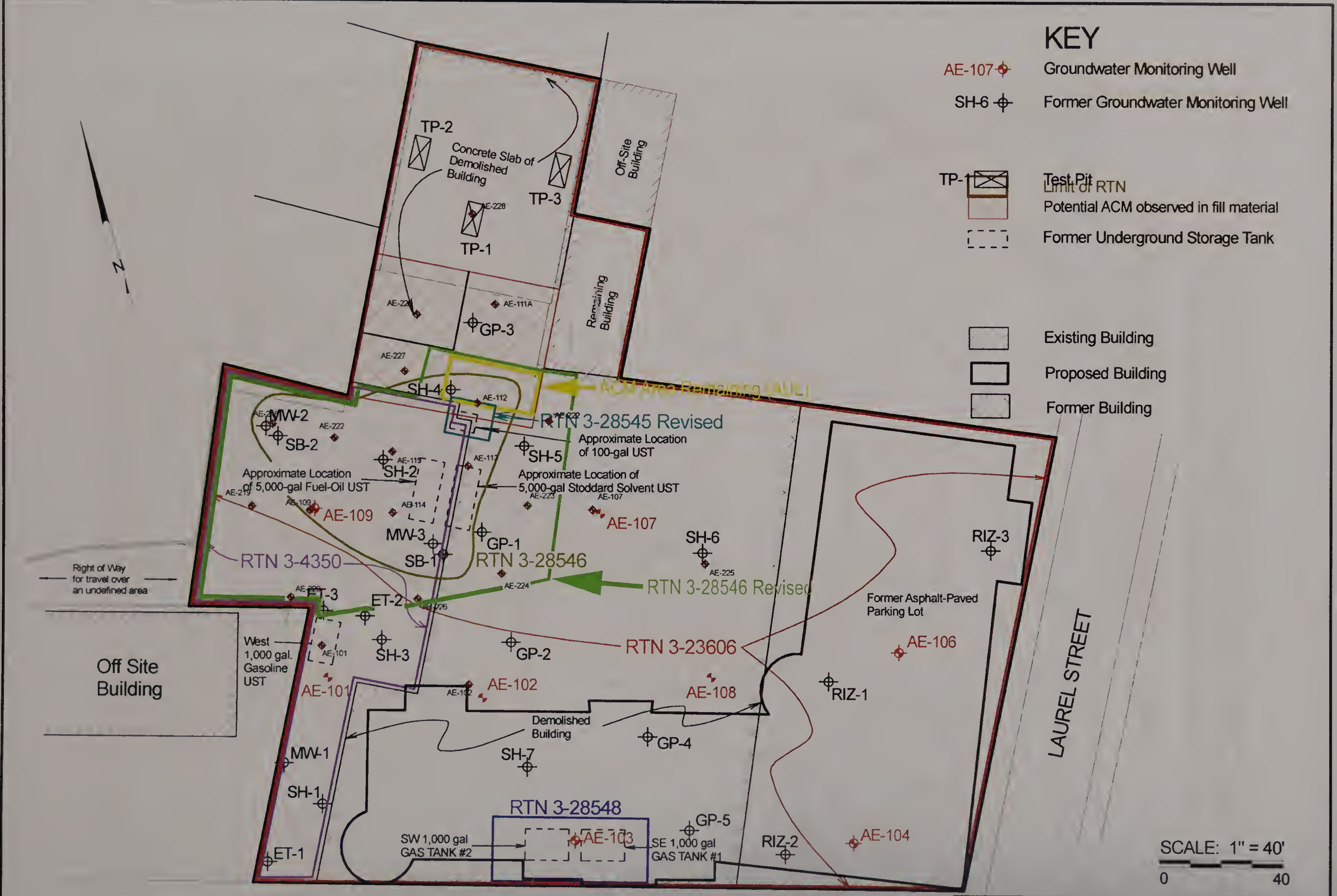
Hydrography: Open Water, PWS Reservoir, Tidal Flat .....

Wetlands: Freshwater, Saltwater, Cranberry Bog ....

FEMA 100yr Floodplain; Protected Open Space, ACEC ....

NHESP: Est Rare Weland Habitat, Certified Vernal Pool ...

DEP Permitted Solid Waste Landfill..................



SAMPLE PLAN
515 Somerville Avenue
Somerville, MA

FIGURE 4
DWN BY: HS
CKD BY: RH
File: 3120 Site Plan 2-17-11

CP Project 0659
Base Map Modified from AEB (2011)

Clean Properties
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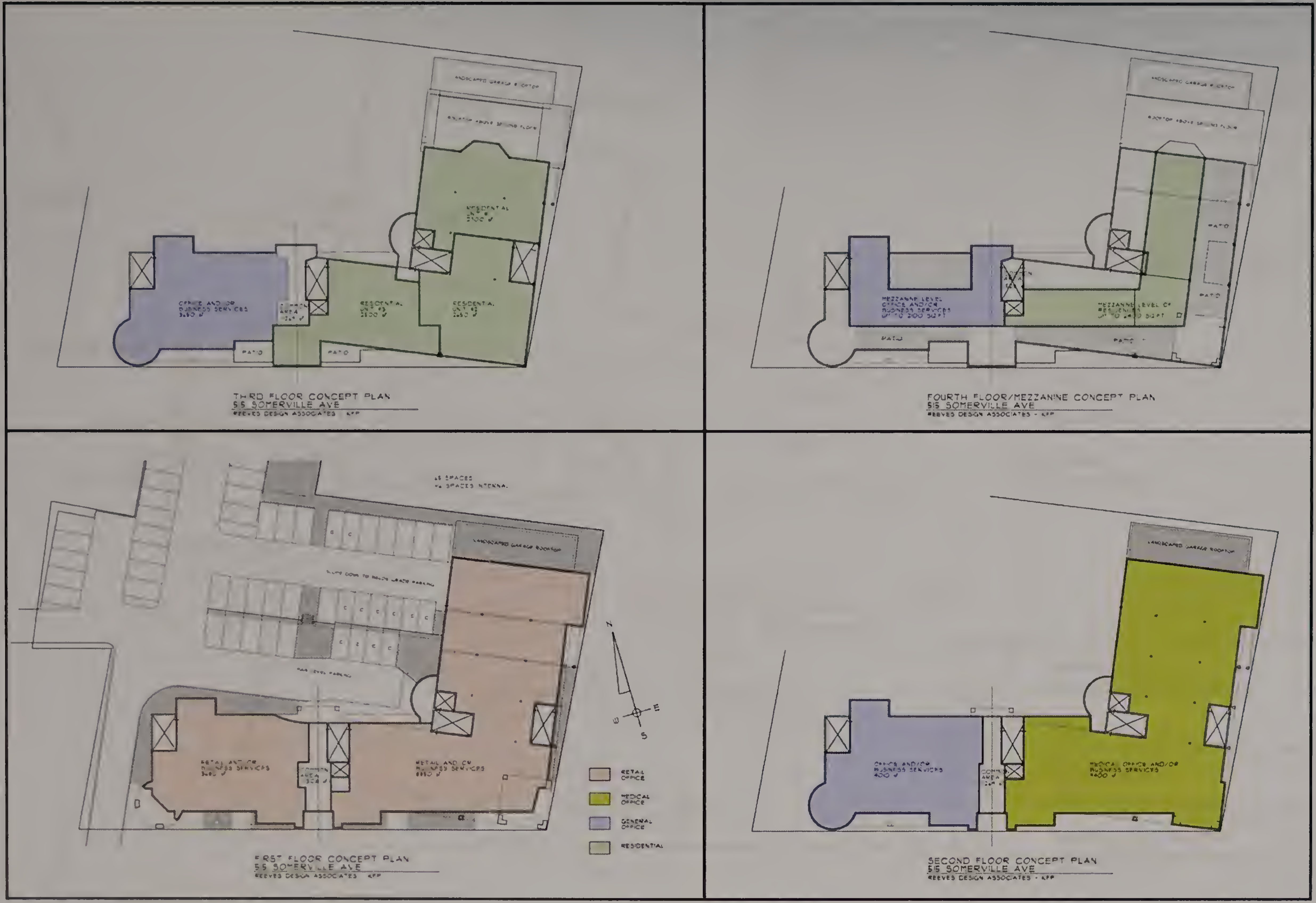
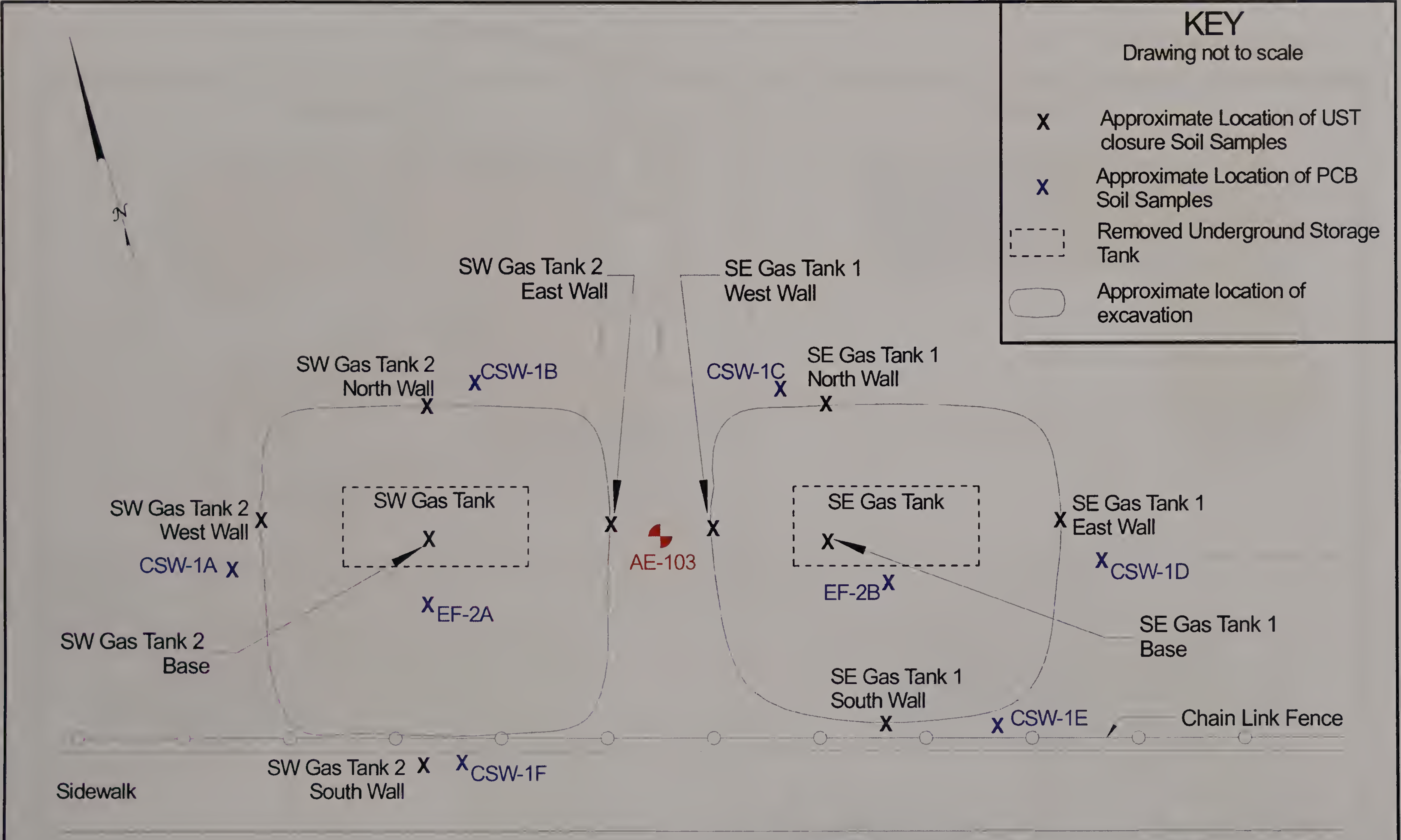

THIRD FLOOR CONCEPT PLAN
515 SOMERVILLE AVE
REEVES DESIGN ASSOCIATES - KFP
FOURTH FLOOR/MEZZANINE CONCEPT PLAN
515 SOMERVILLE AVE
REEVES DESIGN ASSOCIATES - KFP
FIRST FLOOR CONCEPT PLAN
515 SOMERVILLE AVE
REEVES DESIGN ASSOCIATES - KFP
SECOND FLOOR CONCEPT PLAN
515 SOMERVILLE AVE
REEVES DESIGN ASSOCIATES - KFP
PATIO
LANDSCAPED GARAGE ROOFTOP
RETAIL OFFICE
MEDICAL OFFICE
GENERAL OFFICE
RESIDENTIAL
N
E
S
W

Figure 5. – Conceptual floor plans identifying possible occupancy of the commercial building proposed for 515 Somerville Avenue.



Closure Samples for UST Bed
with PCB Sample Locations

515 Somerville Avenue, Somerville, MA

Figure 6
DWN BY: HS
CKD BY: RH
File: SW SE Gas Tanks

CP Project 0659
Base Map Modified
from AEB (2011)

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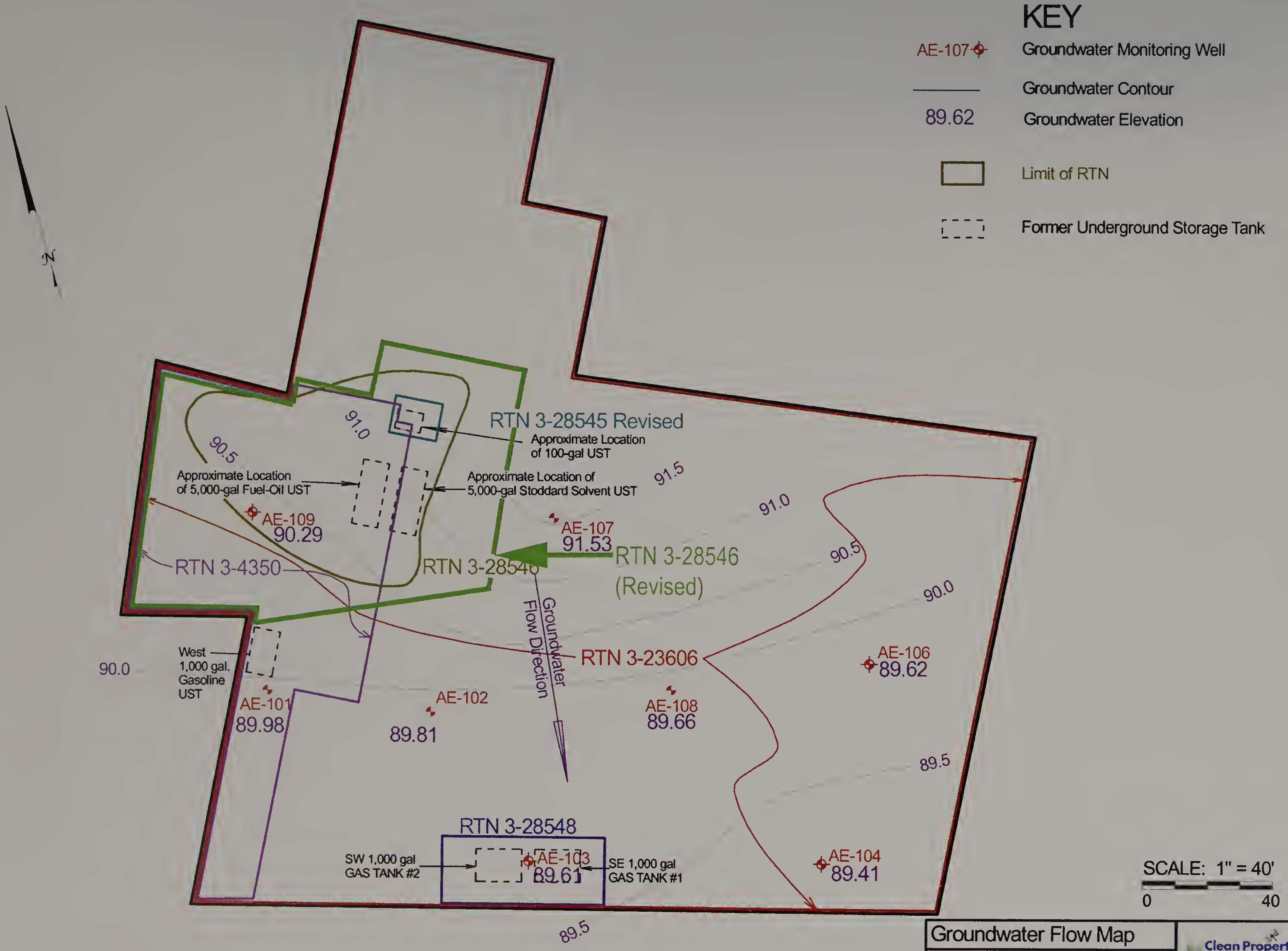

Groundwater Flow Map

515 Somerville Avenue
Somerville, MA

Figure 7
DWN BY: HS
CKD BY: RH
File: 3120 Site Plan 6-4-10

CP Project 0659
Base Map Modified from AEB (2011)

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TABLES

Table 1A
Summary of Volatile Organic Compounds in Soil
515 Somerville Avenue, Somerville, Massachusetts

MCP Standards				RTN 3-23606	RTN 3-28546	RTN 3-28545	RTN 3-4350	RTN 3-28548	TPH concentration calculated from VPH + EPH)	Benzene	Toluene	Tetrachloroethene	Ethylbenzene	m+p-Xylenes	o-Xylene	Total Xylenes	Isopropylbenzene	n-Propylbenzene	tert-Butylbenzene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	sec-Butylbenzene	p-Isopropyltoluene	n-Butylbenzene	Naphthalene
Upper Concentration Limit										9,000	10,000		10,000			10,000									10,000
MCP Method 1 Risk Criteria S-1 GW-2									1000	30	500	10	500	300	300	300	NE	NE	NE		NE	NE	NE	NE	40
MCP Method 1 Risk Criteria S-1 GW-3									1000	30	500	30	500	500	500	500	1,000	100	100		1,000	NE	NE	NE	500
Units									mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Sample ID	Sample Depth	Headspace reading (ppm)	Sample Date																						
GP-1	4 - 8'		11/13/02	🟥	🟩				**19.6c**	< 0.052	< 0.078	< 0.052	< 0.052	< 0.052	< 0.052	**< 0.104**	< 0.052	< 0.052	< 0.260	--	< 0.260	< 0.052	< 0.052	< 0.052	< 0.052
GP-3	4 - 8'		11/13/02	🟥	🟩				**20.2c**	< 0.0022	< 0.0032	< 0.0022	< 0.0022	< 0.0022	< 0.0022	**< 0.0044**	< 0.0022	< 0.0022	< 0.011	--	< 0.011	< 0.0022	< 0.0022	< 0.0022	< 0.0022
SH-5	3 - 4'		9/24/03	🟥	🟩				**62.2c**	--	--	< 0.00083	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-112	0 - 3'	2	1/19/11	🟥	🟩	🟦			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-112	6 - 7'	1,239	1/19/11	🟥	🟩	🟦			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-113	5 - 6'	<126	1/19/11	🟥	🟩	🟦			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-223	6 - 7'		2/10/11	🟥	🟩	🟦			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-223	13 - 14'		2/10/11	🟥	🟩	🟦			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-224	6 - 7'		2/10/11	🟥	🟩	🟦			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-224	14'		2/10/11	🟥	🟩	🟦			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-2	7 - 8'		9/24/03	🟥	🟩	🟦			**1,200c**	--	--	< 0.121	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-4	9 - 10'		9/24/03	🟥	🟩	🟦			239c	--	--	< 0.190	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-115	0 - 3'	168	1/19/11	🟥	🟩	🟦	🟪		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-115	7 - 8'	<2,000	1/19/11	🟥	🟩	🟦	🟪		--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--
SB-1	0 - 1.5'		10/25/92	🟥	🟩		🟪		**56**	--	--	< 0.0075	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-1	0 - 1.5'		10/25/92	🟥	🟩		🟪		**2920**	--	--	< 0.0075	--	--	--	--	--	--	--	--	--	--	--	--	--
ET-3	9 - 11'		1/11/02	🟥	🟩		🟪		**180**	ND	ND	ND	< 1.1	ND	ND	< 1.1	**2**	**6.8**	ND	--	**56**	**7.7**	**8.80**	**16.00**	**6.2**
AE-109	12- 15'		2/18/11	🟥	🟩		🟪		--	< 0.034	< 0.034	< 0.034	< 0.034	< 0.068	< 0.034	< 0.102	**3.700**	**12.000**	**0.870**	--	**88.000**	**6.000**	**0.870**	**3.100**	**2.000**
AE-114	0 - 3'	198	1/19/11	🟥	🟩		🟪		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-114	6 - 7.5'	83	1/19/11	🟥	🟩		🟪		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-218	14.5'		2/10/11	🟥	🟩		🟪		--	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	<0.075	< 0.025	< 0.025	< 0.025	< 0.025	**0.037**	< 0.025	< 0.025	< 0.025	< 0.025
AE-219	10		2/10/11	🟥	🟩		🟪		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-219	13 - 14'		2/10/11	🟥	🟩		🟪		--	< 0.026	< 0.026	< 0.026	< 0.026	< 0.026	< 0.026	<0.052	**0.640**	**1.900**	**0.320**	< 0.026	**1.400**	**2.900**	**4.400**	**0.730**	< 0.026
AE-220	12 - 14'		2/10/11	🟥	🟩		🟪		--	< 0.024	< 0.024	< 0.024	< 0.024	< 0.024	< 0.024	<0.048	**0.920**	**3.500**	**4.600**	**0.390**	**24.000**	**3.700**	**6.300**	**5.700**	**1.400**
AE-221	0 - 1'		2/10/11	🟥	🟩		🟪		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-221	6 - 7'		2/10/11	🟥	🟩		🟪		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-226	12.5'			🟥	🟩		🟪		--	< 0.024	< 0.024	< 0.024	< 0.024	< 0.024	< 0.024	--	**3.000**	**4.300**	**1.000**	< 0.024	**12.000**	**4.300**	**3.400**	**5.100**	**4.400**
SH-1	3 - 4'		9/24/03	🟥	🟩		🟪		20.7c	--	--	< 0.00097	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-3	8 - 9'		9/24/03	🟥	🟩		🟪		33.9c	--	--	< 0.00091	--	--	--	--	--	--	--	--	--	--	--	--	--
ET-2	12 - 16'		1/11/02	🟥	🟩		🟪		--	ND	ND	ND	**0.0013**	ND	ND	**0.0025**	**0.01**	**0.027**	ND	--	**0.21**	**0.041**	**0.038**	**0.058**	**0.012**
AE-101	0 - 3'		2/18/10	🟥			🟪		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-101	3 - 6.5'		2/18/10	🟥			🟪		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GP-2	8 - 12'		11/13/02	🟥					18.3c	< 0.0021	< 0.0031	< 0.0021	< 0.0021	< 0.0021	< 0.0021	< 0.0042	< 0.0021	< 0.0021	< 0.010	--	< 0.010	< 0.0021	< 0.0021	< 0.0021	--
GP-4	8 - 12'		11/13/02	🟥					20.5c	< 0.069	< 0.100	< 0.069	< 0.069	< 0.069	< 0.069	< 0.138	< 0.069	< 0.069	< 0.340	--	< 0.340	< 0.069	< 0.069	< 0.069	--

NOTES:
All depths in feet below grade
< Concentration less than reporting limit
Bold Concentration detected
Shaded Concentration above standards
mg/kg milligrams per kilogram
-- Not analyzed
ND Not detected

Table 1A
Summary of Volatile Organic Compounds in Soil
515 Somerville Avenue, Somerville, Massachusetts

MCP Standards				RTN 3-23606	RTN 3-28546	RTN 3-28545	RTN 3-4350	RTN 3-28548	TPH concentration calculated from VPH + EPH	Benzene	Toluene	Tetrachloroethene	Ethylbenzene	m+p-Xylenes	o-Xylene	Total Xylenes	Isopropylbenzene	n-Propylbenzene	tert-Butylbenzene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	sec-Butylbenzene	p-Isopropyltoluene	n-Butylbenzene	Naphthalene
Upper Concentration Limit										9,000	10,000		10,000			10,000									10,000
MCP Method 1 Risk Criteria S-1 GW-2									1000	30	500	10	500	300	300	300	NE	NE	NE		NE	NE	NE	NE	40
MCP Method 1 Risk Criteria S-1 GW-3									1000	30	500	30	500	500	500	500	1,000	100	100		1,000	NE	NE	NE	500
Units									mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
GP-5	4 - 8'		11/13/02	▨					19.2c	< 0.048	< 0.072	< 0.048	< 0.048	< 0.048	< 0.048	< 0.096	< 0.048	< 0.048	< 0.240	--	< 0.240	< 0.048	< 0.048	< 0.048	--
RIZ-3	6 - 8'		10/25/92	▨					**82**	--	--	< 0.0075	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-5	3 - 4'		9/24/03	▨	▨				**62.2c**	--	--	< 0.00083	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-6	3 - 4'		9/24/03	▨					**629c**	--	--	< 0.065	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-7				▨					**28.8c**	--	--	< 0.168	--	--	--	--	--	--	--	--	--	--	--	--	--
TP-2	2'		7/14/92	▨					**42**	< 0.001	< 0.001	< 0.002	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	NR	--	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AE-102	0 - 3'		2/18/10	▨					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-102	3 - 6'		2/18/10	▨					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-104	0 - 3'		2/18/10	▨					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-104	3 - 6'		2/18/10	▨					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-105	1 - 3'		2/18/10	▨					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-106	3 - 6'		2/18/10	▨					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-107	0 - 3'		2/18/10	▨					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-107	3 - 5.5'		2/18/10	▨					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-108	0 - 3'		2/18/10	▨					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-108	3 - 6'		2/18/10	▨					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-111A	0 - 3'	ND	1/19/11	▨	▨				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-111A	6 - 8'	ND	1/19/11	▨	▨				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-222	6 - 7'		2/10/11	▨	▨				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-227	14.5 - 15'		2/11/11	▨	▨				--	< 0.045	< 0.045	< 0.045	< 0.045	< 0.045	< 0.045	< 0.045	< 0.045	< 0.045	< 0.045	< 0.045	< 0.045	< 0.045	< 0.045	< 0.045	< 0.045
AE-228	3 - 5'		2/11/11	▨					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-229	11 - 12.5'		2/11/10	▨					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-103	0 - 3'		2/18/10	▨				▨	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SEGT-SWall			6/10/09	▨				▨	50.0c	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SEGT-EWall			6/10/09	▨				▨	46.3c	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SEGT-WWall			6/10/09	▨				▨	20.5c	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SEGT-NWall			6/10/09	▨				▨	39.1c	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SEGT-Base			6/10/09	▨				▨	45.1c	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SWGT-SWall			6/10/09	▨				▨	782c	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SWGT-NWall			6/10/09	▨				▨	144c	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SWGT-Ewall			6/10/09	▨				▨	49.6c	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SWGT-Wwall			6/10/09	▨				▨	110c	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SWGT-Base			6/10/09	▨				▨	20.7c	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
WGT-Base			6/10/09	▨				▨	17.5c	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TP4	4'		7/14/92						< 40	< 0.001	< 0.001	< 0.002	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	NR	--	< 0.001	< 0.001	< 0.001	--	--
TP5	5'		7/14/92						< 40	< 0.001	< 0.001	< 0.002	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	NR	--	< 0.001	< 0.001	< 0.001	--	--

NOTES:
All depths in feet below grade
< Concentration less than reporting limit
Bold Concentration detected
Shaded Concentration above standards
mg/kg milligrams per kilogram
-- Not analyzed
ND Not detected

Table 1B
Volatile Petroleum Hydrocarbons in Soil
515 Somerville Avenue, Somerville, MA

Sample ID	Sample Depth	Headspace reading(ppm)	Sample Date	RTN 3-23606	RTN 3-28546	RTN 3-28545	RTN 3-4350	RTN 3-28548	Benzene	Ethylbenzene	MTBE	Naphthalene	Toluene	m+p-Xylenes	o-Xylene	total xylenes	C5-C8 Aliphatic Hydrocarbons	C9-C12 Aliphatic Hydrocarbons	C9-C10 Aromatic Hydrocarbons
MCP Standards																			
Upper Concentration Limit									9,000	10,000	5,000	10,000	10,000			10,000	5,000	20,000	5,000
MCP Method 1 Risk Criteria S-1 GW-2									30	500	100	40	500	300	300		100	1,000	100
MCP Method 1 Risk Criteria S-1 GW-3									30	500	100	500	500	500	500		100	1,000	100
Units									mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
GP-1	4 - 8'		11/13/02	🟥	🟩				--	--	--	--	--	--	--	--	< 2.07	< 2.07	< 2.07
GP-3	4 - 8'		11/13/02	🟥	🟩				--	--	--	--	--	--	--	--	< 2.17	< 2.17	< 2.17
SH-5	3 - 4'		9/24/03	🟥	🟩				--	--	--	--	--	--	--	--	< 3.07	**27.4**	**17.1**
AE-112	0 - 3'	2	1/19/11	🟥	🟩	🟦			< 0.30	< 0.30	< 0.10	< 0.50	< 0.30	--	--	< 0.50	< 2.8	**32.8**	**10.4**
AE-112	6 - 7'	1,239	1/19/11	🟥	🟩	🟦			< 0.30	**11.9**	< 0.10	< 0.50	< 0.30	--	--	**14.2**	**35.0**	**1,874**	**1,900**
AE-113	5 - 6'	<126	1/19/11	🟥	🟩	🟦			< 0.30	< 0.30	< 0.10	< 0.50	< 0.30	< 0.50	< 0.50	<1.00	< 3.0	**60.4**	**17.6**
AE-223	6 - 7'		2/10/11	🟥	🟩	🟦			< 0.30	< 0.30	< 0.10	< 0.60	< 0.30	< 0.60	< 0.60	<1.20	< 2.8	< 2.8	< 2.8
AE-223	13 - 14'		2/10/11	🟥	🟩	🟦			< 0.30	< 0.30	< 0.10	< 0.60	< 0.30	< 0.60	< 0.60	<1.20	< 3.1	< 3.1	< 3.1
AE-224	6 - 7'		2/10/11	🟥	🟩	🟦			< 0.30	< 0.30	< 0.10	< 0.60	< 0.30	< 0.60	< 0.60	<1.20	< 2.8	< 2.8	< 2.8
AE-224	14'		2/10/11	🟥	🟩	🟦			< 0.30	< 0.30	< 0.10	< 0.60	< 0.30	< 0.60	< 0.60	<1.20	< 2.9	< 2.9	< 2.9
SH-2	7 - 8'		9/24/03	🟥	🟩	🟦			< 0.121	**0.644**	--	--	< 0.121	< 0.121	**1.14**	**1.21**	**9.49**	**219**	**214**
SH-4	9 - 10'		9/24/03	🟥	🟩	🟦			< 0.100	< 0.100	--	< 0.995	< 0.100	< 0.100	< 0.100	< 0.200	< 1.99	**57.4**	**62.6**
AE-115	0 - 3'	168	1/19/11	🟥	🟩	🟦	🟪		--	--	--	--	--	--	--	--	--	--	--
AE-115	7 - 8'	<2,000	1/19/11	🟥	🟩	🟦	🟪		< 0.30	**24.2**	< 0.10	< 0.50	< 0.30	--	--	**15.4**	**63.7**	**2,060**	**2,400**
SB-1	0 - 1.5'		10/25/92	🟥	🟩		🟪		< 0.005	< 0.005	--	--	< 0.0075	< 0.010	< 0.005	< 0.015	--	--	--
SB-1	0 - 1.5'		10/25/92	🟥	🟩		🟪		< 0.005	< 0.005	--	--	< 0.0075	< 0.010	< 0.005	< 0.015	--	--	--
ET-3	9 - 11'		1/11/02	🟥	🟩		🟪		--	--	--	--	--	--	--	--	< 41.5	**1,790**	**886**
AE-109	12- 15'		2/18/11	🟥	🟩		🟪		--	--	--	--	--	--	--	--	--	--	--
AE-114	0 - 3'	198	1/19/11	🟥	🟩		🟪		< 0.30	< 0.30	< 0.10	< 0.50	< 0.30	< 0.50	< 0.50	<1.00	< 2.7	< 2.7	< 2.7
AE-114	6 - 7.5'	83	1/19/11	🟥	🟩		🟪		< 0.30	< 0.30	< 0.10	< 0.50	< 0.30	< 0.50	< 0.50	<1.00	< 2.9	< 2.9	< 2.9
AE-218	14.5'		2/10/11	🟥	🟩		🟪		< 0.30	< 0.30	< 0.10	< 0.60	< 0.30	< 0.60	< 0.60	<1.20	**18.4**	**1,070**	**580**
AE-219	10		2/10/11	🟥	🟩		🟪		< 0.30	< 0.30	< 0.10	< 0.60	< 0.30	< 0.60	< 0.60	<1.20	**8.4**	**570**	**430**
AE-219	13 - 14'		2/10/11	🟥	🟩		🟪		< 0.30	< 0.30	< 0.10	< 0.50	< 0.30	< 0.50	< 0.50	<1.20	**70.6**	**7,500**	**2,100**
AE-220	12 - 14'		2/10/11	🟥	🟩		🟪		< 0.30	< 0.30	< 0.10	**1.10**	< 0.30	< 0.60	< 0.60	<1.20	**33.0**	**1,300**	**1,300**
AE-221	0 - 1'		2/10/11	🟥	🟩		🟪		< 0.30	< 0.30	< 0.10	< 0.60	< 0.30	< 0.60	< 0.60	<1.20	< 2.9	< 2.9	< 2.9
AE-221	6 - 7'		2/10/11	🟥	🟩		🟪		< 0.30	< 0.30	< 0.10	< 0.60	< 0.30	< 0.60	< 0.60	<1.20	< 2.9	< 2.9	< 2.9
AE-226	12.5'		2/10/11	🟥	🟩		🟪		< 0.30	< 0.30	< 0.10	**3.4**	< 0.30	< 0.60	< 0.60	<1.20	**180**	**5,500**	**4,100**
SH-1	3 - 4'		9/24/03	🟥	🟩		🟪		--	--	--	--	--	--	--	--	< 2.73	< 2.73	< 2.73
SH-3	8 - 9'		9/24/03	🟥	🟩		🟪		--	--	--	--	--	--	--	--	< 3.32	< 3.32	< 3.32
ET-2	12 - 16'		1/11/02	🟥	🟩		🟪		--	--	--	--	--	--	--	--	--	--	--
AE-101	0 - 3'		2/18/10	🟥			🟪		--	--	--	--	--	--	--	--	--	--	--
AE-101	3 - 6.5'		2/18/10	🟥			🟪		--	--	--	--	--	--	--	--	--	--	--
GP-2	8 - 12'		11/13/02	🟥					--	--	--	--	--	--	--	--	< 1.31	< 1.31	< 1.31
GP-4	8 - 12'		11/13/02	🟥					--	--	--	--	--	--	--	--	< 2.76	< 2.76	< 2.76
GP-5	4 - 8'		11/13/02	🟥					--	--	--	--	--	--	--	--	< 1.91	< 1.91	< 1.91
RIZ-3	6 - 8'		10/25/92	🟥					< 0.005	< 0.005	--	--	< 0.0075	< 0.010	< 0.005	< 0.015	--	--	--
SH-5	3 - 4'		9/24/03	🟥	🟩				< 0.154	< 0.154	--	< 1.60	< 0.154	< 0.154	< 0.154	< 0.308	< 3.07	**27.4**	**17.1**
SH-6	3 - 4'		9/24/03	🟥					< 0.160	< 0.160	--	< 1.60	< 0.160	< 0.160	< 0.160	< 0.320	< 3.19	< 3.19	< 3.19
SH-7				🟥					< 0.168	**2.0**	--	< 1.68	< 0.168	< 0.168	< 0.168	< 0.336	< 3.37	< 3.37	< 3.37
TP-2	2'		7/14/92	🟥					--	--	--	--	--	--	--	--	--	--	--

NOTES:

All depths measured below surface grade

<	Concentration less than reporting limit
Bold	Concentration detected
Yellow	Above standard
--	Not tested
mg/kg	Milligrams per kilogram

Table 1B
Volatile Petroleum Hydrocarbons in Soil
515 Somerville Avenue, Somerville, MA

MCP Standards				RTN 3-23606	RTN 3-28546	RTN 3-28545	RTN 3-4350	RTN 3-28548	Benzene	Ethylbenzene	MTBE	Naphthalene	Toluene	m+p-Xylenes	o-Xylene	total xylenes	C5-C8 Aliphatic Hydrocarbons	C9-C12 Aliphatic Hydrocarbons	C9-C10 Aromatic Hydrocarbons
Upper Concentration Limit									9,000	10,000	5,000	10,000	10,000			10,000	5,000	20,000	5,000
MCP Method 1 Risk Criteria S-1 GW-2									30	500	100	40	500	300	300		100	1,000	100
MCP Method 1 Risk Criteria S-1 GW-3									30	500	100	500	500	500	500		100	1,000	100
Units									mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Sample ID	Sample Depth	Headspace reading(ppm)	Sample Date																
AE-102	0 - 3'		2/18/10	🟥					--	--	--	--	--	--	--	--	--	--	--
AE-102	3 - 6'		2/18/10	🟥					--	--	--	--	--	--	--	--	--	--	--
AE-104	0 - 3'		2/18/10	🟥					--	--	--	--	--	--	--	--	--	--	--
AE-104	3 - 6'		2/18/10	🟥					--	--	--	--	--	--	--	--	--	--	--
AE-105	1 - 3'		2/18/10	🟥					--	--	--	--	--	--	--	--	--	--	--
AE-106	3 - 6'		2/18/10	🟥					--	--	--	--	--	--	--	--	--	--	--
AE-107	0 - 3'		2/18/10	🟥					--	--	--	--	--	--	--	--	--	--	--
AE-107	3 - 5.5'		2/18/10	🟥					--	--	--	--	--	--	--	--	--	--	--
AE-108	0 - 3'		2/18/10	🟥					--	--	--	--	--	--	--	--	--	--	--
AE-108	3 - 6'		2/18/10	🟥					--	--	--	--	--	--	--	--	--	--	--
AE-111A	0 - 3'	ND	1/19/11	🟥	🟩				< 0.30	< 0.30	< 0.10	< 0.50	< 0.30	< 0.50	< 0.50	<1.0	< 2.6	< 2.6	< 2.6
AE-111A	6 - 8'	ND	1/19/11	🟥	🟩				< 0.30	< 0.30	< 0.10	< 0.50	< 0.30	< 0.50	< 0.50	<1.0	< 2.9	< 2.9	< 2.9
AE-222	6 - 7'		2/10/11	🟥	🟩				< 0.30	< 0.30	< 0.10	< 0.50	< 0.30	< 0.50	< 0.50	<1.0	< 2.7	< 2.7	< 2.7
AE-227	14.5 - 15'		2/11/11	🟥	🟩				< 0.30	< 0.30	< 0.10	< 0.60	< 0.30	< 0.60	< 0.60	<1.2	< 3.2	< 3.2	< 3.2
AE-228	3 - 5'		2/11/11	🟥					< 0.30	< 0.30	< 0.10	< 0.60	< 0.30	< 0.60	< 0.60	<1.2	< 2.8	< 2.8	< 2.8
AE-229	11 - 12.5'		2/11/10	🟥					< 0.30	< 0.30	< 0.10	< 0.60	< 0.30	< 0.60	< 0.60	<1.2	< 3.2	< 3.2	< 3.2
AE-103	0 - 3'		2/18/10	🟥				🟪	--	--	--	--	--	--	--	--	--	--	--
SEGT-SWall			6/10/09	🟥				🟪	< 0.322	< 0.322	--	< 1.61	< 0.322	< 0.322	< 0.322	< 0.644	< 8.05	< 8.05	< 8.05
SEGT-EWall			6/10/09	🟥				🟪	< 0.229	< 0.229	--	< 8.44	< 0.229	< 0.229	< 0.229	< 0.458	< 5.73	< 5.73	< 5.73
SEGT-WWall			6/10/09	🟥				🟪	< 0.221	< 0.221	--	--	< 0.221	< 0.221	< 0.221	< 0.442	< 5.53	< 5.53	< 5.53
SEGT-NWall			6/10/09	🟥				🟪	< 0.197	< 0.197	--	< 0.984	< 0.197	< 0.197	< 0.197	< 0.394	< 4.92	< 4.92	< 4.92
SEGT-Base			6/10/09	🟥				🟪	< 0.210	< 0.210	--	< 1.05	< 0.210	< 0.210	< 0.210	< 0.420	< 5.24	< 5.24	< 5.24
SWGT-SWall			6/10/09	🟥				🟪	< 2.09	< 2.09	--	< 10.4	**5.91**	**17.8**	**7.58**	**25.4**	🟨 **357**	**232**	🟨 **170**
SWGT-NWall			6/10/09	🟥				🟪	< 0.245	< 0.245	--	< 1.22	**0.307**	**0.618**	< 0.245	**0.741**	< 6.12	**8.16**	< 6.12
SWGT-Ewall			6/10/09	🟥				🟪	< 0.212	< 0.212	--	< 1.06	< 0.212	**0.284**	< 0.212	**0.390**	< 5.29	< 5.29	< 5.29
SWGT-Wwall			6/10/09	🟥				🟪	**0.790**	**1.61**	--	**1.74**	**3.01**	**10.5**	**3.53**	**14.0**	**26.9**	**15.4**	**23.9**
SWGT-Base			6/10/09	🟥				🟪	< 0.258	< 0.258	--	< 1.29	< 0.258	< 0.258	< 0.258	< 0.516	< 6.44	< 6.44	< 6.44
WGT-Base			6/10/09	🟥				🟪	< 0.123	< 0.123	--	< 0.616	< 0.123	**0.124**	< 0.123	**0.186**	< 3.08	**3.59**	< 3.08
TP4	4'		7/14/92						--	--	--	--	--	--	--	--	--	--	--
TP5	5'		7/14/92						--	--	--	--	--	--	--	--	--	--	--

NOTES:

All depths measured below surface grade

<	Concentration less than reporting limit
Bold	Concentration detected
Yellow	Above standard
--	Not tested
mg/kg	Milligrams per kilogram

Table 1C
Summary of Extractable Petroleum Hydrocarbons in Soil
515 Somerville Avenue
Somerville, Massachusetts

MCP Method 1 Standards				RTN 3-23606	RTN 3-28546	RTN 3-28545	RTN 3-4350	RTN 3-28548	Naphthalene	2-Methylnapthalene	Phenanthrene	Acenaphthylene	Acenaphthene	Fluorene	Anthracene	Fluoranthene	Pyrene	Benz[a]Anthracene	Chrysene	Benzo[b]Fluoranthene	Benzo[k]Fluoranthene	Benzo[b/k]Fluoranthene	Benzo[a]Pyrene	Indeno[1,2,3-c,d]Pyrene	Dibenzo[a,h]Anthracene	Benzo[g,h,i]Perylene	C9-C18 Aliphatic Hydrocarbons	C19-C36 Aliphatic Hydrocarbons	C11-C22 Aromatic Hydrocarbons
Upper Concentration Limit									10,000	5,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	3,000	10,000	3,000	10,000	10,000	300	3,000	300	10,000	20,000	20,000	10,000
MCP Method 1 Risk Criteria S-1 GW-2									40	80	500	600	1,000	1,000	1,000	1,000	1,000	7	70	7	70	NE	2	7	0.7	1,000	1,000	3,000	1,000
MCP Method 1 Risk Criteria S-1 GW-3									500	300	500	10	1,000	1,000	1,000	1,000	1,000	7	70	7	70	NE	2	7	0.7	1,000	1,000	3,000	1,000
Units									mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Sample ID	Sample Depth (ft)	Headspace reading (ppm)	Sample Date																										
GP-1	4 - 8'		11/13/02	■	■				< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 1.098	< 0.549	< 0.549	< 0.549	< 0.549	< 11.0	< 11.0	< 11.0
GP-3	4 - 8'		11/13/02	■	■				< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 1.042	< 0.521	< 0.521	< 0.521	< 0.521	< 10.4	< 10.4	< 10.4
SH-5	3 - 4'		9/24/03	■	■	■			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-112	0 - 3'	2	1/19/11	■	■	■			< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	**0.32**	**0.32**	< 0.29	< 0.29	< 0.29	< 0.29	--	< 0.29	< 0.29	< 0.29	< 0.29	< 11.5	**40.8**	**19.6**
AE-112	6 - 7'	1,239	1/19/11	■	■	■			< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	--	< 0.26	< 0.26	< 0.26	< 0.26	**26.3**	**15.2**	< 10.5
AE-113	0 - 3'	57	1/19/11	■	■	■			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-113	5 - 6'	<126	1/19/11	■	■	■			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-113	7 - 9'	1,074	1/19/11	■	■	■			< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	**0.55**	**0.48**	< 0.30	< 0.30	< 0.30	< 0.30	--	< 0.30	< 0.30	< 0.30	< 0.30	**48.4**	**22.2**	**18.4**
AE-223	6 - 7'		2/11/11	■	■	■			< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	--	< 0.28	< 0.28	< 0.28	< 0.28	< 11.3	< 11.3	< 11.3
AE-223	13 - 14'		2/11/11	■	■	■			< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	--	< 0.31	< 0.31	< 0.31	< 0.31	< 12.3	< 12.3	< 12.3
AE-224	6 - 7'		2/11/11	■	■	■			< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	--	< 0.27	< 0.27	< 0.27	< 0.27	**10.9**	**10.9**	**10.9**
AE-224	14'		2/11/11	■	■	■			< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	--	< 0.30	< 0.30	< 0.30	< 0.30	< 11.9	< 11.9	< 11.9
SH-2	7 - 8'		9/24/03	■	■	■			< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 1.042	< 0.521	< 0.521	< 0.521	< 0.521	**543**	**153**	**59.6**
SH-4	9 - 10'		9/24/03	■	■	■			< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 0.521	< 1.042	< 0.521	< 0.521	< 0.521	< 0.521	**51.9**	**38.7**	**27.9**
AE-115	0 - 3'	168	1/19/11	■	■		■		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-115	7 - 8'	<2,000	1/19/11	■	■		■		< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	**0.37**	**0.37**	< 0.30	< 0.30	< 0.30	< 0.30		< 0.30	< 0.30	< 0.30	< 0.30	**99.3**	**70.3**	**45.3**
SB-1	0 - 1.5'		10/25/92	■	■		■		< 0.220	< 0.180	< 0.260	< 0.260	< 0.290	< 0.270	< 0.250	< 0.290	< 0.280	< 0.310	< 0.310	< 0.175	< 0.175	< 0.350	< 0.380	< 0.470	< 0.490	> 0.500	NT	NT	NT
SB-1	0 - 1.5'		10/25/92	■	■		■		< 0.550	< 0.450	< 0.650	< 0.650	< 0.725	< 0.675	< 0.625	< 0.725	< 0.700	< 0.775	< 0.775	< 0.438	< 0.438	< 0.875	< 0.950	< 1.175	< 1.225	< 1.125	NT	NT	NT
ET-3	9 - 11'		1/11/02	■	■		■		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-109	12- 15'		2/18/11	■	■		■		**2.4**	**0.40**	**0.40**	< 0.28	< 0.28	< 0.28	< 0.28	**0.30**	**0.30**	< 0.28	< 0.28	< 0.28	< 0.28	< 0.56	< 0.28	< 0.28	< 0.28	< 0.28	**2910**	< 11.2	**79.3**
AE-114	0 - 3'	198	1/19/11	■	■		■		< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	**0.34**	**0.34**	< 0.28	< 0.28	< 0.28	< 0.28	--	< 0.28	< 0.28	< 0.28	< 0.28	< 11.3	**26.9**	**44.1**
AE-114	6 - 7.5'	83	1/19/11	■	■		■		< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	--	< 0.29	< 0.29	< 0.29	< 0.29	< 11.7	< 11.7	< 11.7
AE-218	14.5'		2/10/11	■	■		■		**0.51**	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	--	< 0.30	< 0.30	< 0.30	< 0.30	**210**	< 11.8	**16.1**
AE-219	10'		2/10/11	■	■		■		< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	--	< 0.28	< 0.28	< 0.28	< 0.28	**22.2**	**17.2**	**11.6**
AE-219	13 - 14'		2/10/11	■	■		■		< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	--	< 0.31	< 0.31	< 0.31	< 0.31	**75.6**	< 12.5	**15.0**
AE-220	12 - 14'		2/10/11	■	■		■		**0.50**	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	--	< 0.27	< 0.27	< 0.27	< 0.27	**220**	< 10.9	**21.4**
AE-221	0 - 1'		2/10/11	■			■		< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	--	< 0.29	< 0.29	< 0.29	< 0.29	< 11.6	< 11.6	< 11.6
AE-226	12.5'		2/10/11	■			■		**0.89**	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	--	< 0.27	< 0.27	< 0.27	< 0.27	**235**	**42.0**	**43.7**
SH-1	3 - 4'		9/24/03	■			■		< 0.556	< 0.556	< 0.556	< 0.556	< 0.556	< 0.556	< 0.556	< 0.556	< 0.556	< 0.556	< 0.556	< 0.556	< 0.556	< 1.112	< 0.556	< 0.556	< 0.556	< 0.556	< 11.1	< 11.1	< 11.1
SH-3	8 - 9'		9/24/03	■			■		< 0.581	< 0.581	< 0.581	< 0.581	< 0.581	< 0.581	< 0.581	< 0.581	< 0.581	< 0.581	< 0.581	< 0.581	< 0.581	< 1.152	< 0.581	< 0.581	< 0.581	< 0.581	< 11.6	< 11.6	< 11.6
ET-2	12 - 16'		1/11/02	■			■		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-101	0 - 3'		2/18/10	■					< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 10.9	< 10.9	< 10.9
AE-101	3 - 6.5'		2/18/10	■					**0.3**	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 10.7	< 10.7	**25.5**
GP-2	8 - 12'		11/13/02	■					< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 1.086	< 0.543	< 0.543	< 0.543	< 0.543	< 10.9	< 10.9	< 10.9
GP-4	8 - 12'		11/13/02	■					< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 10.9	< 10.9	< 10.9
GP-5	4 - 8'		11/13/02	■					< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 0.543	< 10.9	< 10.9	< 10.9
RIZ-3	6 - 8'		10/25/92	■					< 0.110	< 0.090	< 0.130	< 0.130	< 0.145	< 0.135	< 0.125	**0.153**	< 0.140	< 0.155	< 0.155	< 0.088	< 0.088	< 0.175	< 0.190	< 0.235	--	--	--	--	--
SH-5	3 - 4'		9/24/03	■					< 0.538	< 0.538	< 0.538	< 0.538	< 0.538	< 0.538	< 0.538	< 0.538	< 0.538	< 0.538	< 0.538	< 0.538	< 0.538	< 1.076	< 0.538	< 0.538	< 0.538	< 0.538	< 10.8	< 10.8	< 10.8
SH-6	3 - 4'		9/24/03	■					< 2.66	< 2.66	**102**	< 2.66	**7.19**	**9.54**	**27.2**	**83.8**	**68.7**	**28.8**	**27.8**	**22.6**	**18.1**	**40.7**	**20.9**	**11.7**	**3.72**	**9.66**	< 53.2	**74.5**	**523**
SH-7				■					< 0.562	< 0.562	< 0.562	< 0.562	< 0.562	< 0.562	< 0.562	< 0.562	< 0.562	< 0.562	< 0.562	< 0.562	< 0.562	< 1.124	< 0.562	< 0.562	< 0.562	< 0.562	< 11.2	< 11.2	**12.5**
TP-2	2'		7/14/92	■					< 0.110	< 0.090	**1.530**	< 0.130	< 0.145	< 0.135	**0.365**	**2.220**	**2.250**	**0.990**	**0.801**	< 0.175	< 0.175	**1.540**	**0.858**	**0.570**	< 0.245	**0.560**	--	--	--
AE-102	0 - 3'		2/18/10	■					< 0.27	< 0.27	**0.5**	< 0.27	< 0.27	< 0.27	< 0.27	**0.9**	**1.0**	**0.5**	**0.6**	**0.5**	**0.4**	**0.9**	**0.4**	< 0.27	< 0.27	< 0.27	< 10.8	< 10.8	**22.4**
AE-102	3 - 6'		2/18/10	■					< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 11.0	< 11.0	< 11.0

Notes:
All depths in feet below grade

<	Less than reportable concentration
BOLD	Concentration detected
mg/kg	Milligrams per kilogram
Yellow	Exceeds applicable standards
--	Not tested

Table 1C
Summary of Extractable Petroleum Hydrocarbons in Soil
515 Somerville Avenue
Somerville, Massachusetts

MCP Method 1 Standards				RTN 3-23606	RTN 3-28546	RTN 3-28545	RTN 3-4350	RTN 3-28548	Naphthalene	2-Methylnapthalene	Phenanthrene	Acenaphthylene	Acenaphthene	Fluorene	Anthracene	Fluoranthene	Pyrene	Benz[a]Anthracene	Chrysene	Benzo[b]Fluoranthene	Benzo[k]Fluorenthene	Benzo[b/k]Fluoranthene	Benzo[a]Pyrene	Indeno[1,2,3-c,d]Pyrene	Dibenzo[a,h]Anthracene	Benzo[g,h,i]Perylene	C9-C18 Aliphatic Hydrocarbons	C19-C36 Aliphatic Hydrocarbons	C11-C22 Aromatic Hydrocarbons
Upper Concentration Limit									10,000	5,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	3,000	10,000	3,000	10,000	10,000	300	3,000	300	10,000	20,000	20,000	10,000
MCP Method 1 Risk Criteria S-1 GW-2									40	80	500	600	1,000	1,000	1,000	1,000	1,000	7	70	7	70	NE	2	7	0.7	1,000	1,000	3,000	1,000
MCP Method 1 Risk Criteria S-1 GW-3									500	300	500	10	1,000	1,000	1,000	1,000	1,000	7	70	7	70	NE	2	7	0.7	1,000	1,000	3,000	1,000
Units									mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Sample ID	Sample Depth (ft)	Headspace reading (ppm)	Sample Date																										
AE-104	0 - 3'		2/18/10	🟥					< 0.28	< 0.28	**0.40**	< 0.28	< 0.28	< 0.28	< 0.28	**0.60**	**0.60**	**0.30**	**0.30**	**0.30**	**0.30**	**0.60**	**0.30**	< 0.28	< 0.28	< 0.28	< 11.2	< 11.2	**13.4**
AE-104	3 - 6'		2/18/10	🟥					< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 11.0	< 11.0	< 11.0
AE-105	1 - 3'		2/18/10	🟥					< 0.29	< 0.29	**6.7**	< 0.29	**0.40**	**0.70**	**1.7**	**11.5**	**6.8**	**5.5**	**6.3**	**6.5**	**4.2**	**10.7**	**3.9**	**2.6**	**3.6**	**4.4**	< 11.4	< 11.4	**105**
AE-106	3 - 6'		2/18/10	🟥					< 0.34	< 0.34	**0.40**	< 0.34	< 0.34	< 0.34	< 0.34	**0.70**	**0.80**	**0.40**	**0.40**	< 0.34	< 0.34	< 0.34	**0.40**	< 0.34	< 0.34	< 0.34	< 13.4	< 13.4	**16.1**
AE-107	0 - 3'		2/18/10	🟥					< 0.29	< 0.29	**2.1**	< 0.29	< 0.29	< 0.29	**0.60**	**4.5**	**4.4**	**2.5**	**2.9**	**2.3**	**2.3**	**4.6**	**2.5**	**1.1**	**1.3**	**1.5**	< 11.6	< 11.6	**51.1**
AE-107	3 - 5.5'		2/18/10	🟥					< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 15.5	< 15.5	< 15.5
AE-108	0 - 3'		2/18/10	🟥					< 0.29	< 0.29	**1.5**	< 0.29	< 0.29	< 0.29	**0.30**	**2.9**	**3.1**	**1.5**	**1.7**	**1.6**	**0.80**	**2.4**	**1.4**	**0.60**	**0.60**	**0.80**	< 11.7	< 11.7	**23.9**
AE-108	3 - 6'		2/18/10	🟥					< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 11.2	< 11.2	< 11.2
AE-111A	0 - 3'	ND	1/19/11	🟥					< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	--	< 0.28	< 0.28	< 0.28	< 0.28	< 11.1	< 11.1	< 11.1
AE-111A	6 - 8'	ND	1/19/11	🟥					< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	--	< 0.30	< 0.30	< 0.30	< 0.30	< 12.0	< 12.0	< 12.0
AE-222	6 - 7'		2/10/11	🟥					< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	--	< 0.27	< 0.27	< 0.27	< 0.27	< 10.8	< 10.8	< 10.8
AE-225			2/10/11	🟥					< 0.29	< 0.29	**0.29**	< 0.29	< 0.29	< 0.29	< 0.29	**0.52**	**0.59**	< 0.29	< 0.29	**0.34**	< 0.29	--	< 0.29	< 0.29	< 0.29	**0.51**	< 11.4	< 11.4	**22.6**
AE-227	14.5 - 15'		2/11/11	🟥					< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	--	< 0.32	< 0.32	< 0.32	< 0.32	< 12.9	< 12.9	< 12.9
AE-228	3 - 5'		2/11/11	🟥				🟪	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	--	< 0.29	< 0.29	< 0.29	< 0.29	< 11.7	< 11.7	< 11.7
AE-229	11 - 12.5'		2/11/10	🟥				🟪	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	--	< 0.32	< 0.32	< 0.32	< 0.32	< 12.7	< 12.7	< 12.7
AE-103	0 - 3'		2/18/10	🟥				🟪	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	**0.50**	**0.60**	**0.30**	**0.40**	**0.30**	**0.30**	**0.60**	**0.30**	< 0.30	< 0.30	< 0.30	< 12.0	< 12.0	**14.7**
SEGT-SWall			6/10/09	🟥				🟪	< 0.406	< 0.406	< 0.406	< 0.406	< 0.406	< 0.406	< 0.406	**0.422**	< 0.406	< 0.406	< 0.406	< 0.406	< 0.406	0.812	< 0.406	< 0.406	< 0.406	**1.20**	< 8.13	**12.9**	**21.0**
SEGT-EWall			6/10/09	🟥				🟪	< 0.422	< 0.422	< 0.422	< 0.422	< 0.422	< 0.422	< 0.422	< 0.422	< 0.422	< 0.422	< 0.422	< 0.422	< 0.422	< 0.422	< 0.422	< 0.422	< 0.422	**0.862**	< 8.44	**15.0**	**18.5**
SEGT-WWall			6/10/09	🟥				🟪	< 0.406	< 0.406	< 0.406	< 0.406	< 0.406	< 0.406	< 0.406	< 0.406	< 0.406	< 0.406	< 0.406	< 0.406	< 0.406	< 0.406	< 0.406	< 0.406	< 0.406	**0.889**	< 8.13	< 8.13	< 8.13
SEGT-NWall			6/10/09	🟥				🟪	< 0.388	< 0.388	< 0.388	< 0.388	< 0.388	< 0.388	< 0.388	< 0.388	< 0.388	< 0.388	< 0.388	< 0.388	< 0.388	< 0.388	< 0.388	< 0.388	< 0.388	–	< 7.75	**11.4**	**16.4**
SEGT-Base			6/10/09	🟥				🟪	< 4.06	< 4.06	< 4.06	< 4.06	< 4.06	< 4.06	< 4.06	< 4.06	< 4.06	< 4.06	< 4.06	< 4.06	< 4.06	< 4.06	< 4.06	< 4.06	< 4.06	< 4.06	< 8.13	**16.5**	**16.7**
SWGT-SWall			6/10/09	🟥				🟪	< 0.379	< 0.379	< 0.379	< 0.379	< 0.379	< 0.379	< 0.379	< 0.379	< 0.379	< 0.379	< 0.379	< 0.379	< 0.379	< 0.379	< 0.379	< 0.379	< 0.379	< 0.379	< 7.58	**8.5**	**11.2**
SWGT-NWall			6/10/09	🟥				🟪	< 0.402	< 0.402	**0.512**	< 0.402	< 0.402	< 0.402	< 0.402	**1.01**	**0.839**	**0.611**	**0.95**	**0.758**	**0.585**	**1.343**	**0.599**	**0.532**	< 0.402	**1.02**	**11.8**	**54.8**	**63.6**
SWGT-Ewall			6/10/09	🟥				🟪	< 0.392	< 0.392	**1.66**	< 0.392	< 0.392	< 0.392	< 0.392	**1.74**	**1.48**	**0.698**	**0.899**	**0.739**	**0.614**	**1.353**	**0.675**	**0.501**	< 0.392	**1.43**	< 7.84	**12.5**	**25.2**
SWGT-Wwall			6/10/09	🟥				🟪	< 0.397	< 0.397	< 0.397	< 0.397	< 0.397	< 0.397	< 0.397	< 0.397	< 0.397	< 0.397	< 0.397	< 0.397	< 0.397	< 0.397	< 0.397	< 0.397	< 0.397	**0.875**	< 7.94	**21.4**	**18.6**
SWGT-Base			6/10/09	🟥				🟪	< 0.366	< 0.366	< 0.366	< 0.366	< 0.366	< 0.366	< 0.366	< 0.366	< 0.366	< 0.366	< 0.366	< 0.366	< 0.366	< 0.366	< 0.366	< 0.366	< 0.366	< 0.366	< 7.33	< 7.33	< 7.33
WGT-Base			6/10/09	🟥				🟪	< 0.362	< 0.362	< 0.362	< 0.362	< 0.362	< 0.362	< 0.362	< 0.362	< 0.362	< 0.362	< 0.362	< 0.362	< 0.362	< 0.362	< 0.362	< 0.362	< 0.362	< 0.362	< 7.25	< 7.25	< 7.25
TP4	4'		7/14/92						< 0.110	< 0.090	**0.241**	**0.130**	< 0.145	< 0.135	< 0.125	**0.465**	**0.445**	**0.209**	**0.202**	< 0.175	< 0.175	**0.360**	< 0.090	**0.570**	< 0.245	< 0.250	--	--	--
TP5	5'		7/14/92						< 0.110	< 0.090	< 0.130	< 0.130	< 0.145	< 0.135	< 0.125	< 0.145	< 0.140	< 0.155	< 0.155	< 0.175	< 0.175	< 0.350	< 0.190	< 0.235	< 0.245	< 0.250	--	--	–

Notes:
All depths in feet below grade
< Less than reportable concentration
BOLD Concentration detected
mg/kg Milligrams per kilogram
Yellow Exceeds applicable standards
– Not tested

Table 1D
Summary of PCB's and Metals in Soil
515 Somerville Avenue
Somerville, Massachusetts

Sample ID	Sample Depth (ft)	PID (ppmv)	Sample Date	RTN 3-23606	RTN 3-28546	RTN 3-28545	RTN 3-4350	RTN 3-28548	Organochloride Pesticides	PCBs	Total Cyanide	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
S-1 SOIL & GW-2												20	1,000	2	30		300	**20**	20	400	100	8	2,500
S-1 SOIL & GW-3												20	1,000	2	30		300	**20**	20	400	100	8	2,500
RCS-1												20		2	30		300	**20**	20	400	100	8	2,500
RCS-2												20		30	200		300	30	700	800	200	60	3,000
UCL												200		300	2,000		3,000	300	7,000	8,000	2,000	800	10,000
Units											mg/g	mg/g		mg/g	mg/g	mg/g	mg/g	mg/g	mg/g	mg/g	mg/g	mg/g	mg/g
SB-1	0 - 1.5'		10/25/92	X	X		X		< 0.2	< 0.250	< 0.25	**3.1**	**18.7**	NT	**10.4**	**8.3**	**14.6**	< 0.25	< 10	NT	NT	NT	**25**
SB-1	0 - 1.5'		10/25/92	X	X		X		< 0.2	< 0.250	< 0.25	**4.7**	**20.3**	NT	**24.4**	**8.1**	**14.2**	< 0.25	**18.3**	NT	NT	NT	**24.4**
AE-101	0 - 3'		2/18/10	X			X		NT	NT	NT	**2.58**	**17.4**	NT	**8.29**	NT	**16.1**	< 0.074	NT	NT	NT	NT	NT
AE-101	3 - 6.5'		2/18/10	X			X		NT	NT	NT	**3.55**	**9.09**	NT	**7.72**	NT	**3.05**	< 0.071	NT	NT	NT	NT	NT
RIZ-3	6 - 8'		10/25/92	X					NT	NT	< 0.25	**2.8**	**52.7**	NT	**6.6**	**6.6**	**61.4**	< **0.25**	< 10	NT	NT	NT	**41.7**
TP-2	2'		7/14/92	X					NT	NT	NT	**5.2**	NT	NT	**16.5**	**28.9**	**234**	< **0.25**	**14.5**	NT	NT	NT	**93.1**
AE-102	0 - 3'		2/18/10	X					NT	NT	NT	**2.79**	**37.3**	NT	**5.07**	NT	**111**	< **0.069**	NT	NT	NT	NT	NT
AE-102	3 - 6'		2/18/10	X					NT	NT	NT	**2.43**	**9.24**	NT	**6.30**	NT	**3.15**	< **0.073**	NT	NT	NT	NT	NT
AE-104	**0 - 3'**		2/18/10	X					NT	NT	NT	**1.97**	**62.2**	NT	**10.1**	NT	**31.3**	**0.683**	NT	NT	NT	NT	NT
AE-104	3 - 6'		2/18/10	X					NT	NT	NT	**2.99**	**11.6**	NT	**10.5**	NT	**12.0**	< 0.069	NT	NT	NT	NT	NT
AE-105	1 - 3'		2/18/10	X					NT	NT	NT	**3.24**	**99.0**	NT	**7.20**	NT	**154**	**0.723**	NT	NT	NT	NT	NT
AE-106	3 - 6'		2/18/10	X					NT	NT	NT	**1.29**	**23.7**	NT	**5.60**	NT	**3.63**	< 0.085	NT	NT	NT	NT	NT
AE-107	0 - 3'		2/18/10	X					NT	NT	NT	**3.52**	**36.4**	NT	**13.2**	NT	**140**	**0.551**	NT	NT	NT	NT	NT
AE-107	3 - 5.5'		2/18/10	X					NT	NT	NT	**1.34**	**33.6**	NT	**7.51**	NT	**14.3**	< 0.105	NT	NT	NT	NT	NT
AE-108	**0 - 3'**		2/18/10	X					NT	NT	NT	**3.14**	**34.6**	NT	**7.98**	NT	**287**	**0.544**	NT	NT	NT	NT	NT
AE-108	3 - 6'		2/18/10	X					NT	NT	NT	**0.81**	**17.8**	NT	**6.24**	NT	**5.67**	< **0.071**	NT	NT	NT	NT	NT
AE-225			2/10/11	X					NT	NT	NT	**1.55**	**22.80**	< 0.39	**4.58**	NT	**83.10**	< 0.07	NT	< 0.78	< 0.39	NT	NT
AE-103	**0 - 3'**		2/18/10	X					NT	NT	NT	**2.42**	**41.7**	NT	**8.13**	NT	**124**	**0.204**	NT	NT	NT	NT	NT
TP5	5'		7/14/92						NT	NT	NT	**2.8**	NT	NT	**10.0**	**14.0**	< 10.0	< **0.25**	**10.0**	NT	NT	NT	**93.1**
TP4	4'		7/14/92						NT	NT	NT	**2.4**	NT	NT	8.0	**12.0**	**10.0**	**0.39**	< 10.0	NT	NT	NT	**28.1**

NOTES:

<	Concentration less than applicable reporting limit
Bold	Concentration detected
ft	feet
µg/g	Micrograms per gram, ppm
UCL	Upper Concentration Limit
	Concentration exceeds applicable soil standard
NT	Not Tested

Table 2A
Volatile Organic Compounds in Groundwater
(VOCs) (USEPA Method 8260)
515 Somerville Avenue, Somerville, MA

MCP Standards		RTN 3-23606	RTN 3-28546	RTN 3-28545	RTN 3-4350	RTN 3-28548	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Ethylbenzene	Toluene	Xylenes	tert-Butyl methyl ether	Naphthalene	n-Butylbenzene	sec-Butylbenzene	Isopropylbenzene	p-Isopropyltoluene	n-Propylbenzene	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Chlorobenzene	Benzene	1,2,3-Trichloropropane	tert-Butylbenzene
UCLs		🟥	🟩	🟦	🟪		NE	NE	100,000	100,000	100,000	NE	100,000	NE	NE	NE	NE	NE	NE	NE	100,000	10,000	100,000	NE	NE
Method 1 GW-2 Risk Criteria		🟥	🟩	🟦	🟪		NE	NE	20,000	50,000	9,000	50,000	1,000	NE	NE	NE	NE	NE	50	NE	100	200	2,000	NE	NE
Method 1 GW-3 Risk Criteria		🟥	🟩	🟦	🟪		NE	NE	5,000	40,000	5,000	50,000	20,000	NE	NE	NE	NE	NE	30,000	NE	50,000	1,000	10,000	NE	NE
Units		🟥	🟩	🟦	🟪		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Sample ID	Sample Date																								
GP-1	11/14/02	🟥	🟩				< 2.5	**6.1**	< 0.50	< 0.75	< 1.00	< 1.0	< 2.5	**23**	**52**	**58**	**28**	**100**	< 0.50	< 0.50	< 0.50	**0.58**	--	--	--
	09/25/03	🟥	🟩				NR	NR	< 2.00	< 2.00	< 4.00	< 4.00	< 20.0	NR	NR	NR	NR	NR	< 0.50	< 0.50	< 0.50	< 0.50	--	--	--
		🟥	🟩																						
GP-3	11/14/02	🟥	🟩				< 2.5	< 2.5	< 0.50	< 0.75	< 1.00	< 1.0	< 2.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	--	--	--
		🟥	🟩																						
SH-5	09/25/03	🟥	🟩				NR	NR	< 2.00	< 2.00	< 4.00	< 4.00	< 20.0	NR	NR	NR	NR	NR	< 1.2	< 1.2	< 1.2	< 1.2	--	--	--
		🟥	🟩																						
AE-112	02/15/11	🟥	🟩	🟦			< 1.0	**20**	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	**6.1**	**75**	**13**	**11**	**53**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**14**
		🟥	🟩	🟦																					
AE-113	02/15/11	🟥	🟩	🟦			< 1.0	**3.4**	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	**9.6**	**47**	**18**	< 1.0	**47**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**13**
		🟥	🟩	🟦																					
AE-223	02/15/11	🟥	🟩	🟦			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		🟥	🟩	🟦																					
AE-224	02/15/11	🟥	🟩	🟦			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		🟥	🟩	🟦																					
SH-2	09/25/03	🟥	🟩	🟦			NR	NR	< 4.00	< 4.00	< 8.00	< 8.00	< 40.0	NR	NR	NR	NR	NR	< 2.5	< 2.5	< 2.5	< 2.5	--	--	--
		🟥	🟩	🟦																					
SH-4	09/25/03	🟥	🟩	🟦			NR	NR	< 20.0	< 20.0	< 40.0	< 40.0	< 200	NR	NR	NR	NR	NR	< 12	< 12	< 12	< 12	--	--	--
		🟥	🟩	🟦																					
AE-115	02/15/11	🟥	🟩	🟦	🟪		< 1.0	**16**	< 1.0	< 1.0	< 2.0	--	**1.4**	**6.9**	**35**	**21**	< 1.0	**51**	--	--	--	< 1.0	< 1.0	< 1.0	**6.0**
		🟥	🟩	🟦	🟪																				
ET-3	01/23/02	🟥	🟩		🟪		**150**	**450**	< 10	< 15	< 10	< 20	**70**	**40**	**21**	**12**	**28**	**35**	< 10	< 10	< 10	< 10	--	--	--
	10/15/02	🟥	🟩		🟪		**12**	**36**	**1.0**	< 0.75	< 1.0	**1.0**	< 2.5	**2.5**	**4.9**	**3.2**	< 0.50	**3.9**	< 0.50	< 0.50	< 0.50	< 0.50	--	--	--
		🟥	🟩		🟪																				
MW-2	4/26/90	🟥	🟩		🟪		NR	NR	< 7.2	NR	< 10.0	NR	NR	NR	NR	NR	NR	NR	< 4.1	< 1.9	NR	NR	--	--	--
	7/14/92	🟥	🟩		🟪		< 1.0	< 1.0	**2.3**	< 1.0	**3.1**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**3.1**	< 1.0	< 1.0	< 1.0	--	--	--
		🟥	🟩		🟪																				
MW-3	04/26/90	🟥	🟩		🟪		NR	NR	< 36.0	NR	< 50	NR	NR	NR	NR	NR	NR	NR	**57.0**	< 9.5	NR	NR	--	--	--
	7/14/92	🟥	🟩		🟪		< 1.0	< 1.0	**4.8**	< 1.0	**4.0**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**9.0**	**9.5**	< 1.0	< 1.0	--	--	--
		🟥	🟩		🟪																				

NOTES:

NE	Not Established
NR	Not recorded
--	Not Tested
<	Concentration less that reporting limit
Bold	Concentration Detected
ug/l	Micrograms per liter
Shaded	Above Reportable Concentration

Table 2A
Volatile Organic Compounds in Groundwater
(VOCs) (USEPA Method 8260)
515 Somerville Avenue, Somerville, MA

MCP Standards		RTN 3-23606	RTN 3-28546	RTN 3-28545	RTN 3-4350	RTN 3-28548	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Ethylbenzene	Toluene	Xylenes	tert-Butyl methyl ether	Naphthalene	n-Butylbenzene	sec-Butylbenzene	Isopropylbenzene	p-Iospropyltoluene	n-Propylbenzene	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Chlorobenzene	Benzene	1,2,3-Trichloropropane	tert-Butylbenzene
UCLs							NE	NE	100,000	100,000	100,000	NE	100,000	NE	NE	NE	NE	NE	NE	NE	100,000	10,000	100,000	NE	NE
Method 1 GW-2 Risk Criteria							NE	NE	20,000	50,000	9,000	50,000	1,000	NE	NE	NE	NE	NE	50	NE	100	200	2,000	NE	NE
Method 1 GW-3 Risk Criteria							NE	NE	5,000	40,000	5,000	50,000	20,000	NE	NE	NE	NE	NE	30,000	NE	50,000	1,000	10,000	NE	NE
Units							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Sample ID	Sample Date																								
AE-109	03/03/10	🟥	🟩		🟪		< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/09/10	🟥	🟩		🟪		< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/09/10	🟥	🟩		🟪		< 1.0	**8.4**	< 1.0	< 1.0	< 3.0	< 1.0	**1.9**	**2.6**	< 1.0	**5.9**	**1.7**	**14**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
AE-114	02/15/11	🟥	🟩		🟪		< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	**21**	**76**	**7.2**	< 1.0	**21**	< 1.0	< 1.0	< 1.0	--	**10**	< 1.0	**8.4**
AE-218	02/15/11	🟥	🟩		🟪		< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
AE-219	02/15/11	🟥	🟩		🟪		< 1.0	**130**	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	**10.0**	**44**	**3.8**	**100**	**23**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**4.5**
AE-220	02/16/11	🟥	🟩		🟪		**300**	**1,700**	**9.5**	< 1.0	**3.4**	< 1.0	**130**	**84**	**82**	**60**	**150**	**180**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**8.6**	**12**
AE-221	02/15/11	🟥	🟩		🟪		< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
AE-226	02/15/11	🟥	🟩		🟪		< 1.0	**350**	< 1.0	< 1.0	< 1.0	< 1.0	**37**	**16**	**24**	**9.1**	**35**	**26**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**4.5**
SH-1	09/25/03	🟥			🟪		NR	NR	< 2.00	< 2.00	< 4.00	< 4.00	< 20.0	NR	NR	NR	NR	NR	< 0.50	< 0.50	< 0.50	< 0.50	--	--	--
SH-3	09/25/03	🟥			🟪		< NR	< NR	< 5.00	< 5.00	**18.0**	< 10.0	< 50.0	NR	NR	NR	NR	NR	< 5.0	< 5.0	< 5.0	< 5.0	--	--	--
MW-1	04/26/90	🟥			🟪		NR	NR	< 7.2	NR	< 10.0	NR	NR	NR	NR	NR	NR	NR	< 4.1	< 1.9	NR	NR	--	--	--
	07/15/92	🟥			🟪		NR	NR	< 1.0	NR	< 1.0	NR	NR	NR	NR	NR	NR	NR	< 1.5	< 1.0	NR	NR	--	--	--
ET-1	01/15/02	🟥			🟪		< 2.5	< 2.5	< 0.50	< 0.75	< 1.00	< 1.0	< 2.5	< 0.50	--	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	--	--	--
	10/15/02	🟥			🟪		< 2.5	< 2.5	< 0.50	< 0.75	< 1.00	< 1.0	< 2.5	< 0.50	--	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	--	--	--
	09/25/03	🟥			🟪		NR	NR	< 2.00	< 2.00	< 4.00	< 4.00	< 20.0	NR	NR	NR	NR	NR	< 0.50	< 0.50	< 0.50	< 0.50	--	--	--
ET-2	01/15/02	🟥			🟪		**93**	**310**	< 10	< 15	< 10	< 20	< 50	**52**	**32**	**11**	**29**	**36**	< 10	< 10	--	< 10	--	--	--
	09/25/03	🟥			🟪		NR	NR	< 2.00	< 2.00	< 4.00	< 4.00	< 20.0	NR	NR	NR	NR	NR	< 0.50	< 0.50	< 0.50	< 0.50	--	--	--

NOTES:

NE	Not Established
NR	Not recorded
--	Not Tested
<	Concentration less that reporting limit
Bold	Concentration Detected
ug/l	Micrograms per liter
Shaded	Above Reportable Concentration

Table 2A
Volatile Organic Compounds in Groundwater
(VOCs) (USEPA Method 8260)
515 Somerville Avenue, Somerville, MA

MCP Standards		RTN 3-23606	RTN 3-28546	RTN 3-28545	RTN 3-4350	RTN 3-28548	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Ethylbenzene	Toluene	Xylenes	tert-Butyl methyl ether	Naphthalene	n-Butylbenzene	sec-Butylbenzene	Isopropylbenzene	p-Isopropyltoluene	n-Propylbenzene	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Chlorobenzene	Benzene	1,2,3-Trichloropropane	tert-Butylbenzene
UCLs							NE	NE	100,000	100,000	100,000	NE	100,000	NE	NE	NE	NE	NE	NE	NE	100,000	10,000	100,000	NE	NE
Method 1 GW-2 Risk Criteria							NE	NE	20,000	50,000	9,000	50,000	1,000	NE	NE	NE	NE	NE	50	NE	100	200	2,000	NE	NE
Method 1 GW-3 Risk Criteria							NE	NE	5,000	40,000	5,000	50,000	20,000	NE	NE	NE	NE	NE	30,000	NE	50,000	1,000	10,000	NE	NE
Units							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Sample ID	Sample Date																								
GP-2	11/14/02						< 2.5	< 2.5	< 0.50	< 0.75	< 1.00	< 1.0	< 2.5	**0.93**	**5.6**	**0.71**	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	--	--	--
GP-4	11/14/02						< 2.5	< 2.5	< 0.50	< 0.75	< 1.00	**1.7**	< 2.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	--	--	--
	09/25/03						NR	NR	< 2.00	< 2.00	< 4.00	< 4.00	< 20.0	NR	NR	NR	NR	NR	< 0.50	< 0.50	< 0.50	< 0.50	--	--	--
GP-5	11/14/02						< 2.5	< 2.5	< 0.50	< 0.75	< 1.00	< 1.0	< 2.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	--	--	--
RIZ-1	10/26/90						--	--	< 1.0	< 1.5	< 1.0	< 10	--	--	--	--	--	--	< 1.5	< 1.0	--	--	--	--	--
	10/15/02						< 2.5	< 2.5	< 0.50	< 0.75	< 1.0	< 1.0	< 2.5	< 0.50	--	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	--	--	--
RIZ-2	10/26/92						--	--	< 1.0	**13**	< 1.00	< 10	--	--	--	--	--	--	< 1.5	< 1.0	--	< 3.5	--	--	--
	11/19/02						< 2.5	< 2.5	< 0.50	< 0.75	< 1.00	< 1.0	< 2.5	< 0.50	--	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	--	--	--
RIZ-3	10/26/92						--	--	< 1.0	**36**	< 1.00	< 10	--	--	--	--	--	--	< 1.5	< 1.0	--	< 3.5	--	--	--
SH-6	09/25/03						NR	NR	< 2.00	< 2.00	< 4.00	< 4.00	< 20.0	NR	NR	NR	NR	NR	< 0.50	< 0.50	< 0.50	< 0.50	--	--	--
SH-7	09/25/03						NR	NR	< 2.00	< 2.00	< 4.00	< 4.00	< 20.0	NR	NR	NR	NR	NR	< 0.50	< 0.50	**5.9**	**0.58**	--	--	--
AE-102	03/03/10						< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/09/10						< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/09/10						< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
AE-108	03/03/10						< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/09/10						< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/09/10						< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
AE-111A	02/15/11						< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

NOTES:

NE	Not Established
NR	Not recorded
--	Not Tested
<	Concentration less that reporting limit
Bold	Concentration Detected
ug/l	Micrograms per liter
Shaded	Above Reportable Concentration

Table 2A
Volatile Organic Compounds in Groundwater
(VOCs) (USEPA Method 8260)
515 Somerville Avenue, Somerville, MA

MCP Standards		RTN 3-23606	RTN 3-28546	RTN 3-28545	RTN 3-4350	RTN 3-28548	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Ethylbenzene	Toluene	Xylenes	tert-Butyl methyl ether	Naphthalene	n-Butylbenzene	sec-Butylbenzene	Isopropylbenzene	p-Isopropyltoluene	n-Propylbenzene	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Chlorobenzene	Benzene	1,2,3-Trichloropropane	tert-Butylbenzene
UCLs							NE	NE	100,000	100,000	100,000	NE	100,000	NE	NE	NE	NE	NE	NE	NE	100,000	10,000	100,000	NE	NE
Method 1 GW-2 Risk Criteria							NE	NE	20,000	50,000	9,000	50,000	1,000	NE	NE	NE	NE	NE	50	NE	100	200	2,000	NE	NE
Method 1 GW-3 Risk Criteria							NE	NE	5,000	40,000	5,000	50,000	20,000	NE	NE	NE	NE	NE	30,000	NE	50,000	1,000	10,000	NE	NE
Units							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Sample ID	Sample Date																								
AE-222	02/15/11						< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
AE-225	02/15/11						< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
AE-227	02/15/11						< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
AE-228	02/15/11						--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-229	02/15/11						--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AE-103	02/15/11						--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

NOTES:

NE	Not Established
NR	Not recorded
--	Not Tested
<	Concentration less that reporting limit
Bold	Concentration Detected
ug/l	Micrograms per liter
Shaded	Above Reportable Concentration

Table 2B
Summary of Volatile Petroleum Hydrocarbons Detected in Groundwater
515 Somerville Street
Somerville, Massachusetts

MCP Standards		RTN 3-23606	RTN 3-28546	RTN 3-28545	RTN 3-4350	RTN 3-28548	Benzene	Ethylbenzene	MTBE	Naphthalene	Toluene	m- & p- Xylenes	o- Xylenes	C5-C8 Aliphatic Hydrocarbons	C9-C12 Aliphatic Hydrocarbons	C9-C10 Aromatic Hydrocarbons
Upper Concentration Limit							100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Method 1 GW-2 Risk Criteria							2,000	20,000	50,000	1,000	50,000	9,000	9,000	3,000	5,000	7,000
Method 1 GW-3 Risk Criteria							10,000	5,000	50,000	20,000	40,000	500	500	50,000	50,000	50,000
Units							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Sample ID	Sample Date															
AE-112	02/15/11	🟥	🟩				< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	**1,700**	**1,400**
AE-113	02/15/11	🟥	🟩	🟦			< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	**910**	**590**
AE-223	02/15/11	🟥	🟩	🟦			< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
AE-224	02/15/11	🟥	🟩	🟦			< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
AE-115	02/15/11	🟥	🟩	🟦	🟪		< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	**700**	**400**
AE-109	03/03/10	🟥	🟩		🟪		< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	**148**	< 50
	06/09/10	🟥	🟩		🟪		< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	**73.4**	< 50
	09/09/10	🟥	🟩		🟪		< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	**260**	**310**
AE-114	02/15/11	🟥	🟩		🟪		**10.0**	< 5.0	< 10	< 10	< 5.0	< 10	< 10	**61.6**	**1,410**	**790**
AE-218	02/15/11	🟥	🟩		🟪		< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
AE-219	2/15/2011*	🟥	🟩		🟪		< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	**1,700**	**1,500**
AE-220	02/15/11	🟥	🟩		🟪		< 5.0	< 5.0	< 10	**130**	< 5.0	< 10	< 10	< 50	**6,300**	**4,700**
	06/09/11	🟥	🟩		🟪		< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 2.0	< 1.0	< 100	< 100	< 100
AE-221	02/15/11	🟥	🟩		🟪		< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
AE-226	02/15/11	🟥	🟩		🟪		< 5.0	< 5.0	< 10	**37.0**	< 5.0	< 10	< 10	< 50	**1,500**	**1,900**
AE-101	03/03/10	🟥			🟪		< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
	06/09/10	🟥			🟪		< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
	09/09/10	🟥			🟪		< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50

NOTES:

<	Concentration less than detectable
Bold	Concentration detected
Yellow	Concentration above standard
–	Not tested
*	Sample with significant silt, monitoring well redeveloped and resampled.

Table 2B
Summary of Volatile Petroleum Hydrocarbons Detected in Groundwater
515 Somerville Street
Somerville, Massachusetts

MCP Standards		RTN 3-23606	RTN 3-28546	RTN 3-28545	RTN 3-4350	RTN 3-28548	Benzene	Ethylbenzene	MTBE	Naphthalene	Toluene	m- & p- Xylenes	o- Xylenes	C5-C8 Aliphatic Hydrocarbons	C9-C12 Aliphatic Hydrocarbons	C9-C10 Aromatic Hydrocarbons
Upper Concentration Limit							100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Method 1 GW-2 Risk Criteria							2,000	20,000	50,000	1,000	50,000	9,000	9,000	3,000	5,000	7,000
Method 1 GW-3 Risk Criteria							10,000	5,000	50,000	20,000	40,000	500	500	50,000	50,000	50,000
Units							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Sample ID	Sample Date															
AE-102	03/03/10	🟥					< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
	06/09/10						< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
	09/09/10						< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
AE-104	03/03/10	🟥					< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
	06/09/10						< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
	09/09/10						< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
AE-106	03/03/10	🟥					< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
	06/09/10						< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
	09/09/10						< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
AE-107	03/03/10	🟥					< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
	06/09/10						< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
	09/09/10						< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
AE-108	03/03/10	🟥					< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
	06/09/10						< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
	09/09/10						< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
AE-111A	02/15/11	🟥					< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
AE-222	02/15/11	🟥					< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
AE-225	02/15/11	🟥					< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
AE-227	02/15/11	🟥					< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
AE-228	02/15/11	🟥					< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
AE-229	02/15/11	🟥					< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
AE-103	03/03/10	🟥				🟪	< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
	06/09/10						< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50
	09/09/10						< 5.0	< 5.0	< 10	< 10	< 5.0	< 10	< 10	< 50	< 50	< 50

NOTES:

<	Concentration less than detectable
Bold	Concentration detected
Yellow	Concentration above standard
–	Not tested
*	Sample with significant silt, monitoring well redeveloped and resampled.

Table 2C
Summary of Extractable Petroleum Hydrocarbons in Groundwater
515 Somerville Avenue
Somerville, Massachusetts

MCP Method 1 Standards		RTN 3-23606	RTN 3-28546	RTN 3-28545	RTN 3-4350	RTN 3-28548	Naphthalene	2-Methylnapthalene	Phenanthrene	Acenaphthylene	Acenaphthene	Fluorene	Anthracene	Fluoranthene	Pyrene	Benz[a]Anthracene	Chrysene	Benzo[b]Fluoranthene	Benzo[k]Fluoranthene	Benzo[a]Pyrene	Indeno[1,2,3-c,d]Pyrene	Dibenzo[a,h]Anthracene	Benzo[g,h,i]Perylene	C9-C18 Aliphatic Hydrocarbons	C19-C36 Aliphatic Hydrocarbons	C11-C22 Aromatic Hydrocarbons
Method 1 GW-2 Risk Criteria		🟥	🟩	🟦	🟪		1,000	2,000	NA	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,000	NA	50,000
Method 1 GW-3 Risk Criteria		🟥	🟩	🟦	🟪		20,000	20,000	10,000	40	6,000	40	30	200	20	1,000	70	400	100	500	100	40	20	50,000	50,000	5,000
Upper Concentration Limit		🟥	🟩	🟦	🟪		100,000	100,000	100,000	100,000	60,000	400	600	2,000	800	10,000	700	4,000	1,000	5,000	1,000	400	500	100,000	100,000	100,000
Units		🟥	🟩	🟦	🟪		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Sample ID	Sample Date																									
AE-112	02/15/11	🟥	🟩				< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	**166**
AE-113	02/15/11	🟥	🟩	🟦			< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
AE-223	02/15/11	🟥	🟩	🟦			< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
AE-224	02/15/11	🟥	🟩	🟦			< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
AE-115	02/15/11	🟥	🟩	🟦	🟪		< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
AE-109	03/03/10	🟥	🟩		🟪		< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
	06/09/10	🟥	🟩		🟪		< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
	09/09/10	🟥	🟩		🟪		< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
AE-114	02/15/11	🟥	🟩		🟪		< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
AE-218	02/15/11	🟥	🟩		🟪		< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
AE-219	02/15/11	🟥	🟩		🟪		< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
AE-220	02/15/11	🟥	🟩		🟪		< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	**159**
	02/15/11	🟥	🟩		🟪		< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
AE-221	02/15/11	🟥	🟩		🟪		< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
AE-226	02/15/11	🟥	🟩		🟪		< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
AE-101	03/03/10	🟥			🟪		< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
	06/09/10	🟥			🟪		< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
	09/09/10	🟥			🟪		< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150

NOTES:

<	Concentration less than detectable
Bold	Concentration detected
Shaded	Concentration above standards
ug/L	Micrograms per liter

Table 2C
Summary of Extractable Petroleum Hydrocarbons in Groundwater
515 Somerville Avenue
Somerville, Massachusetts

MCP Method 1 Standards		RTN 3-23606	RTN 3-28546	RTN 3-28545	RTN 3-4350	RTN 3-28548	Naphthalene	2-Methylnapthalene	Phenanthrene	Acenaphthylene	Acenaphthene	Fluorene	Anthracene	Fluoranthene	Pyrene	Benz[a]Anthracene	Chrysene	Benzo[b]Fluoranthene	Benzo[k]Fluoranthene	Benzo[a]Pyrene	Indeno[1,2,3-c,d]Pyrene	Dibenzo[a,h]Anthracene	Benzo[g,h,i]Perylene	C9-C18 Aliphatic Hydrocarbons	C19-C36 Aliphatic Hydrocarbons	C11-C22 Aromatic Hydrocarbons
Method 1 GW-2 Risk Criteria							1,000	2,000	NA	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,000	NA	50,000
Method 1 GW-3 Risk Criteria							20,000	20,000	10,000	40	6,000	40	30	200	20	1,000	70	400	100	500	100	40	20	50,000	50,000	5,000
Upper Concentration Limit							100,000	100,000	100,000	100,000	60,000	400	600	2,000	800	10,000	700	4,000	1,000	5,000	1,000	400	500	100,000	100,000	100,000
Units							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AE-102	03/03/10						< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
	06/09/10						< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
	09/09/10						< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
AE-104	03/03/10						< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
	06/09/10						< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
	09/09/10						< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
AE-106	03/03/10						< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
	06/09/10						< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
	09/09/10						< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
AE-107	03/03/10						< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
	06/09/10						< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
	09/09/10						< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
AE-108	03/03/10						< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
	06/09/10						< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
	09/09/10						< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
AE-111A	02/15/11						< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
AE-222	02/15/11						< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
AE-225	02/15/11						< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
AE-227	02/15/11						< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
AE-228	02/15/11						< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
AE-229	02/15/11						< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
AE-103	03/03/10						< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
	06/09/10						< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150
	09/09/10						< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 0.2	< 0.5	< 0.5	< 5.0	< 200	< 200	< 150

NOTES:

< Concentration less than detectable
Bold Concentration detected
Shaded Concentration above standards
ug/L Micrograms per liter

Table 3
Summary of Groundwater Physio-chemical Parameters
515 Somerville Avenue
Somerville, Massachusetts

Sample ID	Sample Date	RTN 3-23606	RTN 3-28546	RTN 3-28545	RTN 3-4350	RTN 3-28548	Temperature	Specific Conductivity	Specific Conductivity	% Dissolved Oxygen	Dissolved Oxygen	pH	Redox Potential	Time
Units							°C	µS/cm^2	µS/cm	--	mg/L	--	mV	--
AE-112	02/15/11	🟥	🟩				6.85	1927	1259	3.9	0.47	6.43	-24.8	3:30 PM
AE-113	02/16/11	🟥	🟩	🟦			9.22	1409	984	6.9	0.79	6.91	-74.7	11:30 AM
AE-223	02/16/11	🟥	🟩	🟦			8.61	573	393	60.3	7.03	6.51	113.4	12:00 PM
AE-224	02/16/11	🟥	🟩	🟦			7.12	498	328	42.2	5.10	656.00	134.2	12:40 PM
AE-115	02/15/11	🟥	🟩	🟦	🟪		7.13	1849	1218	15.1	1.81	6.60	3.9	12:55 PM
AE-109	03/03/10	🟥	🟩		🟪		6.28	989	635	45.8	5.63	6.19	180.2	11:50 AM
	06/09/10	🟥	🟩		🟪		15.29	2621	2135	24.4	2.43	5.89	273.0	1:39 PM
	09/09/10	🟥	🟩		🟪		19.70	1019	915	0.7	0.07	6.65	-152.7	2:15 PM
	02/04/11	🟥	🟩		🟪		10.13	636	455	3.0	0.33	6.22	-107.0	10:45 AM
AE-114	02/16/11	🟥	🟩		🟪		7.47	547	363	5.1	0.60	6.61	-53.8	10:57 AM
AE-218	02/15/11	🟥	🟩		🟪		9.37	2451	1721	82.8	9.38	6.86	227.8	11:10 AM
AE-219	02/15/11	🟥	🟩		🟪		8.92	797	553	3.4	0.39	6.55	-85.7	11:46 AM
AE-220	02/16/11	🟥	🟩		🟪		9.57	178	126	4.1	0.46	6.47	-62.3	2:00 PM
AE-221	02/15/11	🟥	🟩		🟪		8.38	2756	1882	79.7	9.26	6.53	121.1	12:20 PM
AE-226	02/16/11	🟥	🟩		🟪		7.68	211	142	5.1	0.61	6.26	-107.7	1:30 PM
	06/09/11	🟥	🟩		🟪		14.23	223.00	156.00	91.90	9.18	6.23	212.00	5:10 AM
AE-101	03/03/10	🟥			🟪		6.59	97	63	91.4	11.20	6.17	160.5	12:26 PM
	06/09/10	🟥			🟪		15.44	62	51	91.9	9.18	6.23	197.9	10:10 AM
	09/09/10	🟥			🟪		16.70	78	65	59.2	5.77	5.69	202.0	1:42 PM
	02/04/11	🟥			🟪		11.27	114	84	39.2	4.29	5.53	167.5	11:40 AM
AE-102	03/03/10	🟥					6.28	791	508	69.2	8.54	6.12	237.5	11:20 AM
	06/09/10	🟥					13.90	401	316	56.6	5.81	6.16	288.3	10:35 AM
	09/09/10	🟥					16.80	397	336	67.6	0.74	6.13	161.4	1:08 PM
	02/04/11	🟥					10.11	447	320	26.4	2.97	6.10	165.2	12:04 PM
AE-104	03/03/10	🟥					10.36	551	397	19.1	2.14	6.51	139.6	9:17 AM
	06/09/10	🟥					13.33	967	751	6.2	0.65	6.34	222.1	11:38 AM
	09/09/10	🟥					16.70	1337	1125	13.0	1.25	5.79	213.5	12:10 PM
	02/04/11	🟥					10.88	649	474	23.3	2.57	6.22	189.5	8:37 AM

NOTES:
C Degrees Celsius
mg/L Milligrams per liter
uS/cm MicroSiemens per centimeter
mV Millivolts

Table 3
Summary of Groundwater Physio-chemical Parameters
515 Somerville Avenue
Somerville, Massachusetts

		RTN 3-23606	RTN 3-28546	RTN 3-28545	RTN 3-4350	RTN 3-28548	Temperature	Specific Conductivity	Specific Conductivity	% Dissolved Oxygen	Dissolved Oxygen	pH	Redox Potential	Time
Units							°C	µS/cm²	µS/cm	--	mg/L	--	mV	--
Sample ID	Sample Date													
AE-106	03/03/10	🟥					7.86	249	167	52.0	6.17	6.02	201.3	9:40 AM
	06/09/10	🟥					13.37	552	430	71.5	7.46	5.77	340.2	12:15 PM
	09/09/10	🟥					18.60	192	169	38.8	3.60	6.23	173.8	10:30 AM
	02/04/11	🟥					11.46	119	88	37.2	4.06	6.03	213.3	9:20 AM
AE-107	03/03/10	🟥					7.73	1725	1156	58.6	6.94	5.92	237.80	10:25 AM
	06/09/10	🟥					13.63	1872	1466	53.1	5.48	6.22	355.0	12:40 PM
	09/09/10	🟥					17.00	1319	1114	46.0	4.43	6.79	181.7	11:05 AM
	02/04/11	🟥					9.87	944	671	48.5	5.47	6.48	210.6	10:09 AM
AE-108	03/03/10	🟥					8.24	922	627	48.0	5.63	5.40	231.0	10:05 AM
	06/09/10	🟥					13.44	815	635	59.1	6.15	5.32	353.2	1:07 PM
	09/09/10	🟥					16.40	1305	1091	3.6	0.35	5.33	250.9	11:40 AM
	02/04/11	🟥					10.97	1130	827	40.0	7.39	5.32	243.5	9:46 AM
AE-111A	02/15/11	🟥					8.95	3430	2378	38.0	4.34	6.47	174.7	3:00 PM
AE-222	02/15/11	🟥					8.20	457	310	71.2	8.36	6.99	52.4	3:50 PM
AE-225	02/16/11	🟥					9.09	1105	780	20.8	2.39	5.40	218.6	1:03 PM
AE-227	02/15/11	🟥					6.81	2378	1553	94.7	11.44	6.90	76.7	1:22 PM
AE-228	02/15/11	🟥					3.45	2755	1621	89.0	11.72	7.14	99.5	2:35 PM
AE-229	02/15/11	🟥					8.11	3055	2076	52.4	6.12	6.16	180.7	1:58 PM
AE-103	03/03/10	🟥				🟪	9.04	2264	1573	50.6	5.81	6.13	238.2	10:52 AM
	06/09/10	🟥				🟪	13.06	107	824	63.3	6.64	6.09	329.5	10:58 AM
	09/09/10	🟥				🟪	16.00	1384	1145	23.1	2.27	6.14	193.3	12:40 PM
	02/04/11	🟥				🟪	11.27	1310	10	22.9	2.49	6.11	174.5	12:27 PM

NOTES:
C Degrees Celsius
mg/L Milligrams per liter
uS/cm MicroSiemens per centimeter
mV Millivolts

Table 4
Summary of Monitoring Well Gauging Data
515 Somerville Avenue
Somerville, Massachusetts

Well ID	RTN 3-23606	RTN 3-28546	RTN 3-28545	RTN 3-4350	RTN 3-28548	Date	Relative Top of Casing (arbitrary elevation of 100.00 feet at Well AE-106)	Water Depth	Non Aqueous Phase Liquid (NAPL)	NAPL Thickness	Relative Piezometric Head
AE-112	■	■	■			2/16/11	101.20	8.62	-	-	92.58
AE-113	■	■	■			2/16/11	100.40	9.04	-	-	91.36
AE-223	■	■	■			2/16/11	101.32	9.30	-	-	92.02
AE-224	■	■	■			2/16/11	101.08	9.41	-	-	91.67
AE-115	■	■	■	■		2/16/11	99.44	7.79	-	-	91.65
AE-109	■	■		■		3/2/10	98.46	5.90	-	-	92.56
						3/3/10		6.48	-	-	91.98
						6/9/10		7.19	-	-	91.27
						9/9/10		9.41	-	-	89.05
						2/3/11		8.17	-	-	90.29
						2/16/11	98.46	7.78			90.68
AE-114	■	■		■		2/16/11	99.00	8.68	-	-	90.32
AE-218	■	■		■		2/16/11	102.28	10.39	-	-	91.89
AE-219	■	■		■		2/16/11	102.04	11.83	-	-	90.21
AE-220	■	■		■		2/16/11	101.91	11.82	-	-	90.09
						6/9/11	-	9.92	-	-	91.99
AE-221	■	■		■		2/16/11	101.07	9.11	-	-	91.96
AE-226	■	■		■		2/16/11	100.26	10.01	-	-	90.25
AE-101	■			■		3/2/10	97.87	6.10	-	-	91.77
						3/3/10		6.65	-	-	91.22
						6/9/10		7.22	-	-	90.65
						9/9/10		8.82	-	-	89.05
						2/3/11		7.89	-	-	89.98
						2/16/11	97.70	7.58			90.12
AE-102	■					3/2/10	98.70	6.94	-	-	91.76
						3/3/10		7.12	-	-	91.58
						6/9/10		8.27	-	-	90.43
						9/9/10		9.86	-	-	88.84
						2/3/11		8.89	-	-	89.81
						2/16/11	98.76	8.64			90.12

NOTES
All depths in feet
NAPL - Non-aqueous phase liquid hydrocarbons
TOC Elevation - Top of casing relative to arbitrary elevation of 100 feet at AE-106
Piezometric Head - Elevation of piezometric surface without correction for NAPL

Table 4
Summary of Monitoring Well Gauging Data
515 Somerville Avenue
Somerville, Massachusetts

Well ID	RTN 3-23606	RTN 3-28546	RTN 3-28545	RTN 3-4350	RTN 3-28548	Date	Relative Top of Casing (arbitrary elevation of 100.00 feet at Well AE-106)	Water Depth	Non Aqueus Phase Liquid (NAPL)	NAPL Thickness	Relative Piezometric Head

NOTES
All depths in feet
NAPL - Non-aqueous phase liquid hydrocarbons
TOC Elevation - Top of casing relative to arbitrary elevation of 100 feet at AE-106
Piezometric Head - Elevation of piezometric surface without correction for NAPL

Table 4
Summary of Monitoring Well Gauging Data
515 Somerville Avenue
Somerville, Massachusetts

Well ID	RTN 3-23606	RTN 3-28546	RTN 3-28545	RTN 3-4350	RTN 3-28548	Date	Relative Top of Casing (arbitrary elevation of 100.00 feet at Well AE-106)	Water Depth	Non Aqueous Phase Liquid (NAPL)	NAPL Thickness	Relative Piezometric Head
AE-104	🟥					3/2/10	100.50	10.13	-	-	90.37
						3/3/10		10.09	-	-	90.41
						6/9/10		10.85	-	-	89.65
						9/9/10		12.03	-	-	88.47
						2/3/11		11.09	-	-	89.41
AE-106	🟥					3/2/10	100.00	9.28	-	-	90.72
						3/3/10		9.28	-	-	90.72
						6/9/10		10.06	-	-	89.94
						9/9/10		11.39	-	-	88.61
						2/3/11		10.38	-	-	89.62
AE-107	🟥					3/2/10	98.83	4.62	-	-	94.21
						3/3/10		4.70	-	-	94.13
						6/9/10		6.22	-	-	92.61
						9/9/10		8.62	-	-	90.21
						2/3/11		7.30	-	-	91.53
						2/16/11	98.98	6.71			92.27
AE-108	🟥					3/2/10	99.46	8.57	-	-	90.89
						3/3/10		8.58	-	-	90.88
						6/9/10		9.46	-	-	90.00
						9/9/10		10.79	-	-	88.67
						2/3/11		9.80	-	-	89.66
AE-111A	🟥					2/16/11	100.52	7.49	-	-	93.03
AE-222	🟥					2/16/11	102.80	10.26	-	-	92.54
AE-225	🟥					2/16/11	102.35	12.04	-	-	90.31
AE-227	🟥					2/16/11	101.40	8.86	-	-	92.54
AE-228	🟥					2/16/11	103.70	3.65	-	-	100.05
AE-229	🟥					2/16/11	101.82	8.98	-	-	92.84
AE-103	🟥				🟪	3/2/10	99.35	8.72	-	-	90.63
						3/3/10		8.70	-	-	90.65
						6/9/10		8.50	-	-	90.85
						9/9/10		10.68	-	-	88.67
						2/3/11		9.74	-	-	89.61

NOTES
All depths in feet
NAPL - Non-aqueous phase liquid hydrocarbons
TOC Elevation - Top of casing relative to arbitrary elevation of 100 feet at AE-106
Piezometric Head - Elevation of piezometric surface without correction for NAPL

TABLE 6. — EXPOSURE POINT CONCENTRATIONS IN SOIL WITHIN THE PORTION OF RTN 3-23606 ALSO IDENTIFIED BY RTN 3-28545 AND/OR RTN 3-28546.

CONTAMINANT OF CONCERN	NUMBER OF SAMPLES	CONCENTRATIONS IN SOIL IN MILLIGRAMS PER KILOGRAM, approximately Parts Per Million (ppm)			
		MAXIMUM CONCENTRATION	MINIMUM CONCENTRATION	AVERAGE CONCENTRATION	EXPOSURE POINT CONCENTRATION
Volatile Organic Compounds (USEPA Method 8260 + MassDEP VPH Method)					
Benzene	33	<0.30	<0.0022	0.13	0.13
Toluene	33	<0.30	<0.0032	0.13	0.13
Ethylbenzene	35	**24.2**	<0.0010	3.8	3.8
Xylenes	34	**15.4**	0.0025	3.6	3.6
Methyl tert-butyl ether	20	<0.10	<0.10	0.050	NC
Naphthalene	32	**6.2**	<0.0022	0.73	0.73
Isopropylbenzene	10	**3.700**	<0.0022	1.03	IV
n-Propylbenzene	10	**12.000**	<0.0022	2.86	IV
tert-Butylbenzene	8	**4.600**	<0.011	0.87	IV
1,3,5-Trimethylbenzene	5	**0.390**	<0.024	0.090	IV
1,2,4-Trimethylbenzene	10	**88.0**	<0.011	18.2	IV
sec-Butylbenzene	10	**7.7**	<0.0022	2.47	IV
n-Butylbenzene	10	**16.0**	<0.0022	3.08	IV
p-Isopropyltoluene	10	**8.80**	<0.0022	2.39	IV
Tetrachloroethene	14	<0.19	<0.00083	0.026	NC
Petroleum Hydrocarbons (USEPA Methods, MassDEP VPH and EPH Methods, and Summation of VPH+EPH)					
Total Petroleum Hydrocarbons (TPH)	9	**2920**	**19.6**	529	IVE
VPH C5-8 Aliphatics	27	**180**	<2.07	37	37
VPH C9-12 Aliphatics	27	**7500**	<2.07	2000	2000
VPH C9-10 Aromatics	27	**4100**	<2.07	1200	1200
EPH C9-18 Aliphatics	25	**2910**	<10.4	400	400
EPH C19-36 Aliphatics	25	**153**	<10.4	28	28
EPH C11-22 Aromatics	25	**79.3**	<10.4	31	31
Polynuclear Aromatic Hydrocarbons (PAHs) by USEPA Methods and MassDEP EPH Method					
Naphthalene	27	**2.4**	<0.26	0.319	IA
2-Methylnaphthalene	27	**0.40**	<0.26	0.19	0.19
Phenanthrene	27	**0.40**	<0.26	0.19	0.19
Acenaphthylene	27	<0.650	<0.26	0.18	0.18
Acenaphthene	27	<0.725	<0.26	0.18	0.18

CONTAMINANT OF CONCERN	NUMBER OF SAMPLES	CONCENTRATIONS IN SOIL IN MILLIGRAMS PER KILOGRAM, approximately Parts Per Million (ppm)			
		MAXIMUM CONCENTRATION	MINIMUM CONCENTRATION	AVERAGE CONCENTRATION	EXPOSURE POINT CONCENTRATION
Fluorene	27	<0.675	<0.26	0.18	0.18
Anthracene	27	<0.625	<0.26	0.18	0.18
Fluoranthene	27	0.55	<0.26	0.24	0.24
Pyrene	27	0.48	<0.26	0.23	0.23
Benzo(a)anthracene	27	<0.775	<0.26	0.18	0.18
Chrysene	27	<0.775	<0.26	0.18	0.18
Benzo(b)fluoranthene	27	<0.521	<0.26	0.18	0.18
Benzo(k)fluoranthene	27	<0.521	<0.175	0.18	0.18
Benzo(a)pyrene	27	<0.950	<0.26	0.18	0.18
Indeno(1,2,3-cd)pyrene	27	<1.175	<0.26	0.18	0.18
Dibenzo(a,h)anthracene	27	<1.225	<0.26	0.18	0.18
Benzo(g,h,i)perylene	27	<1.13	<0.26	0.18	0.18
Metals and Other CoCs					
Arsenic	3	4.7	1.55	3.12	NC
Barium	3	22.8	18.7	20.6	NC
Cadmium	1	<0.39	<0.39	0.185	NC
Chromium	3	24.4	4.58	13.1	NC
Copper	2	8.3	8.2	8.2	NC
Lead	3	83.1	14.2	37.3	NC
Mercury	3	<0.25	<0.07	0.095	NC
Nickel	2	18.3	<5	10.4	NC
Selenium	1	<0.78	<0.78	0.39	NC
Silver	1	<0.39	<0.39	0.195	NC
Tellurium	0	NT	NT	—	NC
Zinc	2	25	24.4	24.7	NC

NT = Not Tested
Average Concentration calculated using the detected concentration or half the analytical lower detection limit if the concentration is not detected.
NC = Not a Contaminant of Concern for Risk Assessment purposes.
IV = Not a separate COC for Risk Assessment purposes because included in VPH fractions.
IVE = Not a separate COC for Risk Assessment purposes because individually evaluated as VPH + EPH fractions.
IA = Not separately considered in Risk Assessment as VPH Naphthalene concentration was higher and evaluated above.

TABLE 7. — EXPOSURE POINT CONCENTRATIONS IN URBAN FILL OUTSIDE AREA OF RTN 3-23606 COMPRISING RTN 3-28545 + RTN 3-28546.

DETECTED CONTAMINANT	NUMBER OF SAMPLES	CONCENTRATIONS IN SOIL IN MILLIGRAMS PER KILOGRAM, approximately Parts Per Million (ppm)			
		MAXIMUM CONCENTRATION	MINIMUM CONCENTRATION	AVERAGE CONCENTRATION (EPC in Bold)	MassDEP BACKGROUND
Volatile Organic Compounds (USEPA Method 8260 + MassDEP VPH Method)					
Benzene	2	<0.160	<0.001	**0.040**	NE
Toluene	2	<0.160	<0.001	**0.040**	NE
Ethylbenzene	2	<0.160	<0.001	**0.040**	NE
Xylenes	2	<0.320	<0.003	**0.081**	NE
Naphthalene	2	<1.60	<0.001	**0.40**	NE
Petroleum Hydrocarbons (USEPA Methods, MassDEP VPH and EPH Methods, and Summation of VPH+EPH)					
Total Petroleum Hydrocarbons (TPH)	1	**42**	42	42	NE
VPH C5-8 Aliphatics	1	<3.19	<3.19	**1.60**	NE
VPH C9-12 Aliphatics	1	<3.19	<3.19	**1.60**	NE
VPH C9-10 Aromatics	1	<3.19	<3.19	**1.60**	NE
EPH C9-18 Aliphatics	8	<53.2	<10.8	**8.30**	NE
EPH C19-36 Aliphatics	8	**74.5**	<10.8	**14.3**	NE
EPH C11-22 Aromatics	8	**523**	<10.9	**95.7**	NE
Polynuclear Aromatic Hydrocarbons (PAHs) by USEPA Methods and MassDEP EPH Method					
Naphthalene	9	<2.66	<0.110	0.26	1
2-Methylnaphthalene	9	<2.66	<0.090	0.31	1
Phenanthrene	9	102	<0.27	12.8	20
Acenaphthylene	9	<2.66	<0.13	0.27	1
Acenaphthene	9	7.19	<0.145	0.95	2
Fluorene	9	**9.54**	<0.125	1.24	2
Anthracene	9	**27.2**	<0.27	3.40	4
Fluoranthene	9	**83.8**	<0.27	11.9	10
Pyrene	9	**68.7**	<0.27	9.73	20
Benzo(a)anthracene	9	**28.8**	<0.27	4.50	9
Chrysene	9	**27.8**	<0.27	4.55	7
Benzo(b)fluoranthene	9	**22.6**	<0.175	3.81	8
Benzo(k)fluoranthene	9	**18.1**	<0.175	2.96	4
Benzo(a)pyrene	9	**20.9**	<0.27	3.41	7

DETECTED CONTAMINANT	NUMBER OF SAMPLES	CONCENTRATIONS IN SOIL IN MILLIGRAMS PER KILOGRAM, approximately Parts Per Million (ppm)			
		MAXIMUM CONCENTRATION	MINIMUM CONCENTRATION	AVERAGE CONCENTRATION (EPC in Bold)	MassDEP BACKGROUND
Indeno(1,2,3-cd)pyrene	9	**11.7**	<0.27	1.90	3
Dibenzo(a,h)anthracene	9	**3.72**	<0.245	1.10	1
Benzo(g,h,i)perylene	9	**9.66**	<0.27	1.94	3
Metals and Other CoCs					
Arsenic	8	5.20	1.97	3.11	20
Barium	7	99.0	17.4	46.9	50
Chromium	8	16.5	5.07	9.56	40
Copper	1	28.9	28.9	28.9	200
Lead	8	287	16.1	137	600
Mercury	8	0.723	<0.069	0.363	1
Nickel	1	14.5	14.5	14.5	30

MassDEP Background concentrations from *Technical Update to Section 2.3 Guidance for Disposal Site Risk Characterization — In Support of the Massachusetts Contingency Plan (1992)*, May 23, 2002.
NE = Not Established
Average Concentration calculated using the detected concentration or half the analytical lower detection limit if the concentration is not detected.

TABLE 8. — EXPOSURE POINT CONCENTRATIONS IN NATIVE SOIL OUTSIDE AREA OF RTN 3-23606 COMPRISING RTN 3-28545 + RTN 3-28546.

CONTAMINANT OF CONCERN	NUMBER OF SAMPLES	CONCENTRATIONS IN SOIL IN MILLIGRAMS PER KILOGRAM, approximately Parts Per Million (ppm)			
		MAXIMUM CONCENTRATION	MINIMUM CONCENTRATION	AVERAGE CONCENTRATION	EXPOSURE POINT CONCENTRATION
Volatile Organic Compounds (USEPA Method 8260 + MassDEP VPH Method)					
Benzene	22	**0.790**	<0.001	0.13	0.13
Toluene	21	**5.91**	<0.0075	0.51	0.51
Ethylbenzene	22	**2.00**	<0.001	0.284	0.28
Xylenes	22	**2.54**	<0.003	2.02	2.0
Methyl tert-butyl ether	3	<0.10	<0.10	0.050	NC
Naphthalene	14	**1.74**	<0.50	1.20	1.2
Isopropylbenzene	5	<0.069	<0.0010	0.012	IV
n-Propylbenzene	5	<0.069	<0.001	0.012	IV
tert-Butylbenzene	3	<0.340	<0.010	0.098	IV
1,3,5-Trimethylbenzene	NT	NT	NT	—	IV
1,2,4-Trimethylbenzene	NT	NT	NT	—	IV
sec-Butylbenzene	5	<0.069	<0.001	0.012	IV
n-Butylbenzene	3	<0.069	<0.0021	0.020	IV
p-Isopropyltoluene	5	<0.069	<0.001	0.012	IV
Tetrachloroethene	11	<0.168	<0.00091	0.019	NC
Petroleum Hydrocarbons (USEPA Methods, MassDEP VPH and EPH Methods, and Summation of VPH+EPH)					
Total Petroleum Hydrocarbons (TPH)	21	**782**	**17.5**	105	IVE
VPH C5-8 Aliphatics	21	**357**	<1.31	20.1	20
VPH C9-12 Aliphatics	21	**232**	<1.31	14.0	14
VPH C9-10 Aromatics	21	**170**	<1.31	11.0	11
EPH C9-18 Aliphatics	27	**11.8**	<7.25	5.37	5.4
EPH C19-36 Aliphatics	27	**54.8**	<7.25	9.57	9.6
EPH C11-22 Aromatics	27	**63.6**	<7.25	13.0	13
Polynuclear Aromatic Hydrocarbons (PAHs) by USEPA Methods and MassDEP EPH Method					
Naphthalene	30	**0.30**	<0.110	0.25	IA
2-Methylnaphthalene	32	<2.03	<0.090	0.24	0.24
Phenanthrene	32	**1.66**	<0.130	0.31	0.31
Acenaphthylene	32	**0.130**	<0.130	0.25	0.25
Acenaphthene	32	<4.06	<0.145	0.24	0.24

CONTAMINANT OF CONCERN	NUMBER OF SAMPLES	CONCENTRATIONS IN SOIL IN MILLIGRAMS PER KILOGRAM, approximately Parts Per Million (ppm)			
		MAXIMUM CONCENTRATION	MINIMUM CONCENTRATION	AVERAGE CONCENTRATION	EXPOSURE POINT CONCENTRATION
Fluorene	32	<4.06	<0.135	0.24	0.24
Anthracene	32	<4.06	<0.125	0.24	0.24
Fluoranthene	32	**1.74**	<0.27	0.36	0.36
Pyrene	32	**1.48**	<0.140	0.35	0.35
Benzo(a)anthracene	32	**0.698**	<0.155	0.27	0.27
Chrysene	32	**0.95**	<0.155	0.30	0.30
Benzo(b)fluoranthene	32	**0.758**	<0.088	0.28	0.28
Benzo(k)fluoranthene	32	**0.614**	<0.088	0.27	0.27
Benzo(a)pyrene	32	**0.675**	<0.088	0.28	0.28
Indeno(1,2,3-cd)pyrene	31	**0.570**	<0.235	0.27	0.27
Dibenzo(a,h)anthracene	31	<4.06	<0.245	0.25	0.25
Benzo(g,h,i)perylene	31	**1.43**	<0.250	0.42	0.42
Metals and Other CoCs					
Arsenic	10	**3.55**	**0.81**	3.02	NC
Barium	8	**52.7**	**9.09**	22.6	NC
Cadmium	1	<0.39	<0.39	0.195	NC
Chromium	10	**10.5**	**4.58**	7.3	NC
Copper	3	**14.0**	**6.6**	10.9	NC
Lead	10	**61.4**	<3.05	11.8	NC
Mercury	10	**0.39**	<0.069	0.0912	NC
Nickel	3	**10.00**	<10.0	6.67	NC
Selenium	0	NT	NT	—	NC
Silver	0	NT	NT	—	NC
Tellurium	0	NT	NT	—	NC
Zinc	3	**93.1**	**28.1**	54.3	NC

NT = Not Tested
Average Concentration calculated using the detected concentration or half the analytical lower detection limit if the concentration is not detected.
NC = Not a Contaminant of Concern for Risk Assessment purposes.
IV = Not a separate COC for Risk Assessment purposes because included in VPH fractions.
IVE = Not a separate COC for Risk Assessment purposes because individually evaluated as VPH + EPH fractions.
IA = Not separately considered in Risk Assessment as VPH Naphthalene concentration was higher and evaluated above.

TABLE 9. — SITE RECEPTOR EXPOSURE ASSESSMENT SUMMARY FOR RISK CHARACTERIZATION, 515 Somerville Avenue, Somerville, MA RTN 3-23606, 3-28545, and 3-28546

Receptor	Exposure Point	Activity	Time	Medium	Exposure Route	Is Pathway Selected for Quantitative Evaluation?	Reason for Selection or Exclusion
Possible Future Site Residents (Adults & Children)	Indoors	Indoor activities	Future	Indoor Air	Inhalation of COCs in air	No	Soil gas testing indicates that volatile COC impact to indoor air is not likely.
	Outdoors (0-15 feet) and Site grown fruits and vegetables	Outdoor activities and consumption of homegrown produce	Future	Soil	Dermal contact, Incidental Ingestion, Ingestion of Produce	Yes	Site Residents and Workers may be exposed to impacted soil if topsoil breched.
Trespassers	Outdoors (0-15 feet)	Outdoor Trespassing	Current and Future	Soil	Dermal Contact, Incidental Ingestion	Yes	Trespassers may have direct contact to soil and dust.
Construction Workers and Non-Emergency Utility Workers	Outdoors (0-15 feet)	Activiteis >3 months in duration, up to 15 feet in depth	Future	Soil Groundwater	Dermal Contact, Incidental Ingestion Particulate Inhalation	Yes	Future Construction and Non-Emergency Utility Workers may be exposed to impacted soils if excavating to depth.
Emergency Utility Worker	Outdoors (0-6 feet)	Activities related to emergency repair and installation of utilities one day per year	Future	Soil	Dermal Contact, Incidental Ingestion, Particulate Inhalation	No	Less exposure duration than Non-Emergency Utility Workers
Full-Time Worker	Indoors	Indoor activities	Future	Indoor Air	Inhalation of COCs in air	No	Soil gas testing indicates that volatile COC impact to indoor air is not likely.
	Outdoors (0-15 feet)	Outdoor activities	Future	Soil	Dermal Contact, Incidental Ingestion, Particulate Inhalation	No	Less exposure potential than Residents.

Note: Groundwater is not a drinking-water source and is not a potential drinking-water source at the site.

TABLE 10. — EXPOSURE POINT CONCENTRATIONS IN GROUNDWATER BASED ON MAXIMUM CONCENTRATIONS

CONTAMINANT OF CONCERN	MAXIMUM DETECTED POST-SOURCE REMOVAL CONCENTRATIONS IN GROUNDWATER IN MICROGRAMS PER LITER, approximately Parts Per Billion (ppb)	
	RTN 3-28545 + 3-28546	RTN 3-28606
Volatile Petroleum Hydrocarbon (VPH) Fractions		
VPH C5-C8 Aliphatics	61.6	<50
VPH C9-C12 Aliphatics	1,700	<50
VPH C9-C10 Aromatics	1,900	<50
VPH Target Volatile Organic Compounds (VOCs)		
Benzene	<5.0	<5.0
Toluene	<5.0	<5.0
Ethylbenzene	<5.0	<5.0
Xylenes	<10	<10
Naphthalene	37	<10
Extractable Petroleum Hydrocarbon (EPH) Fractions		
EPH C9-C18 Aliphatics	<200	<200
EPH C19-C36 Aliphatics	<200	<200
EPH C11-C22 Aromatics	166	<150
Source removal consisted of the removal of underground storage tanks and building demolition in 2009.		

TABLE 11 - CAM COPLIANCE SUMMARY TABLE FOR DATA RELIED UPON FOR RESPONSE ACTION OUTCOME (RAO) CONCLUSIONS

Lab	Lab Job ID	Customer ID	Sample ID	Analytical Method	QC Conditions
Alpha Analytical Lab	920761S	JSS-RZ2-GW-401	920761S-04	9073	QC summary information page is missing
Alpha Analytical Lab	920761S	JSS-RZ2-GW-401	920761S-04	8260	QC summary information page is missing
Alpha Analytical Lab	920761S	JSS-RZ2-GW-401	920761S-04	8100M	QC summary information page is missing
Alpha Analytical Lab	920761S	JSS-RZ2-GW-402	920761S-0S	8260	QC summary information page is missing
Alpha Analytical Lab	L0211837	RIZ-2-GW	L0211837-01	8260B	Summary page stated that one sample was above and/or below the acceptance criteria required for the method. However, supporting documents are not showing any such variance.
Alpha Analytical Lab	L03096S6	GP-4	L03096S6-21	8260B	
Alpha Analytical Lab	L0907709	SE GAS TANK 1 SWALL	L0907709-01	S9,VPH-04-1.1	Summary QC report indicates that NOT all QC performance standards and recommendations
Alpha Analytical Lab	L0907709	SE GAS TANK 1 SWALL	L0907709-01	61,EPH-04-01	for the specified method(s) were achieved.
Alpha Analytical Lab	L0907709	SE GAS TANK 1 BASE	L0907709-02	S9,VPH-04-1.1	
Alpha Analytical Lab	L0907709	SE GAS TANK 1 BASE	L0907709-02	61,EPH-04-01	VPH - Samples L0907709-01 through 10 fell short of the recommended 1:1methanol:soil ratio
Alpha Analytical Lab	L0907709	SE GAS TANK 1 EWALL	L0907709-03	S9,VPH-04-1.1	due to insufficient soil in the sample vial.
Alpha Analytical Lab	L0907709	SE GAS TANK 1 EWALL	L0907709-03	61,EPH-04-01	
Alpha Analytical Lab	L0907709	SE GAS TANK 1 WWALL	L0907709-04	S9,VPH-04-1.1	EPH - The WG366739-2/-3 LCS/LCSD RPD associated with L0907709-01 through -11 is above the
Alpha Analytical Lab	L0907709	SE GAS TANK 1 WWALL	L0907709-04	61,EPH-04-01	acceptance criteria for Nonane (C9)(27%); however, the individual LCS/LCSD recoveries are
Alpha Analytical Lab	L0907709	SE GAS TANK 1 NWALL	L0907709-0S	S9,VPH-04-1.1	within method limits.
Alpha Analytical Lab	L0907709	SE GAS TANK 1 NWALL	L0907709-0S	61,EPH-04-01	
Alpha Analytical Lab	L0907709	SW GAS TANK2 SWALL	L0907709-06	59,VPH-04-1.1	
Alpha Analytical Lab	L0907709	SW GAS TANK2 SWALL	L0907709-06	61,EPH-04-01	VPH - Sample L0907709-06 has elevated detection limits due to dilution required by the elevated
Alpha Analytical Lab	L0907709	SW GAS TANK2 BASE	L0907709-07	59,VPH-04-1.1	concentrations of target compounds in the sample.
Alpha Analytical Lab	L0907709	SW GAS TANK2 BASE	L0907709-07	61,EPH-04-01	
Alpha Analytical Lab	L0907709	SW GAS TANK2 NWALL	L0907709-08	59,VPH-04-1.1	
Alpha Analytical Lab	L0907709	SW GAS TANK2 NWALL	L0907709-08	61,EPH-04-01	
Alpha Analytical Lab	L0907709	SW GAS TANK2 EWALL	L0907709-09	S9,VPH-04-1.1	
Alpha Analytical Lab	L0907709	SW GAS TANK2 EWALL	L0907709-09	61,EPH-04-01	
Alpha Analytical Lab	L0907709	SW GAS TANK2 WWALL	L0907709-10	S9,VPH-04-1.1	
Alpha Analytical Lab	L0907709	SW GAS TANK2 WWALL	L0907709-10	61,EPH-04-01	
Alpha Analytical Lab	L0907709	WEST GT BASE	L0907709-11	59,VPH-04-1.1	
Alpha Analytical Lab	L0907709	WEST GT BASE	L0907709-11	61,EPH-04-01	
Alpha Analytical Lab	L0907777	SOUTHERN GAS TANK SOLIDS	L0907777-02	Waste Samples	Summary QC report indicate that NOT all QC performance standards and recommendations
					for the specified method(s) were achieved and NOT all results for all analyte-list compounds/
					elements for the specified methods reported.
					The related narrative stated that the WG367369-1/-2 LCS/LCSD recoveries associated with
					L0907777-02 are outside the acceptance criteria for several compounds; however, they have been
					identified as "difficult" analytes. The results of the associated samples are reported; however,
					all results are considered to have a potentially high bias for bromomethane (LCS at 134%) and
					a potentially low bias for dichloroflouromethane (66%64%).
Alpha Analytical Lab	L0908376	NORTH TANK SOLIDS	L0908376-01	1131, 6010B, 7470A	
Alpha Analytical Lab	L0908376	SOUTHERN GAS TANK SOLIDS	L0908376-02	EPA 1131, 6010B	
Net Lab	V0304-20	AE103	V0304-20	MADEP EPH 98-1	
Net Lab	V0610-18	AE103	V0610-18	MADEP EPH 98-1	

TABLE 11 - CAM COPLIANCE SUMMARY TABLE FOR DATA RELIED UPON FOR RESPONSE ACTION OUTCOME (RAO) CONCLUSIONS

Lab	Lab Job ID	Customer ID	Sample ID	Analytical Method	QC Conditions
Net Lab	V0910-31	AE103	V0910-31	MADEP EPH 98-1	
Net Lab	V0125-31	CSW-1	V0125-31	EPA 8082	
Net Lab	V0125-31	EF-2	V0125-31	EPA 8082	
Net Lab	W0204-23	AE103	W0204-23	MADEP EPH 98-1	
Net Lab	W0318-13	AE-220	AE-220	MADEP VPH 01/98	
Net Lab	W0217-42	AE-111A	AE-111A	MADEP EPH 98-1	
Net Lab	W0217-42	AE-112	AE-112	MADEP EPH 98-1	
Net Lab	W0217-42	AE-113	AE-113	MADEP EPH 98-1	
Net Lab	W0217-42	AE-114	AE-114	MADEP EPH 98-1	
Net Lab	W0217-42	AE-115	AE-115	MADEP EPH 98-1	
Net Lab	W0217-42	AE-218	AE-218	MADEP EPH 98-1	
Net Lab	W0217-42	AE-219	AE-219	MADEP EPH 98-1	
Net Lab	W0217-42	AE-220	AE-220	MADEP EPH 98-1	
Net Lab	W0217-42	AE-221	AE-221	MADEP EPH 98-1	
Net Lab	W0217-42	AE-222	AE-222	MADEP EPH 98-1	
Net Lab	W0217-42	AE-223	AE-223	MADEP EPH 98-1	
Net Lab	W0217-42	AE-224	AE-224	MADEP EPH 98-1	
Net Lab	W0217-42	AE-225	AE-225	MADEP EPH 98-1	
Net Lab	W0217-42	AE-226	AE-226	MADEP EPH 98-1	
Net Lab	W0217-42	AE-227	AE-227	MADEP EPH 98-1	
Net Lab	W0217-42	AE-228	AE-228	MADEP EPH 98-1	
Net Lab	W0217-42	AE-229	AE-229	MADEP EPH 98-1	
Net Lab	W0217-42	AE-111A	AE-111A	MADEP VPH 01/98	
Net Lab	W0217-42	AE-112	AE-112	MADEP VPH 01/98	
Net Lab	W0217-42	AE-113	AE-113	MADEP VPH 01/98	
Net Lab	W0217-42	AE-114	AE-114	MADEP VPH 01/98	
Net Lab	W0217-42	AE-115	AE-115	MADEP VPH 01/98	
Net Lab	W0217-42	AE-218	AE-218	MADEP VPH 01/98	
Net Lab	W0217-42	AE-219	AE-219	MADEP VPH 01/98	
Net Lab	W0217-42	AE-220	AE-220	MADEP VPH 01/98	
Net Lab	W0217-42	AE-221	AE-221	MADEP VPH 01/98	
Net Lab	W0217-42	AE-222	AE-222	MADEP VPH 01/98	
Net Lab	W0217-42	AE-223	AE-223	MADEP VPH 01/98	
Net Lab	W0217-42	AE-224	AE-224	MADEP VPH 01/98	
Net Lab	W0217-42	AE-225	AE-225	MADEP VPH 01/98	
Net Lab	W0217-42	AE-226	AE-226	MADEP VPH 01/98	
Net Lab	W0217-42	AE-227	AE-227	MADEP VPH 01/98	
Net Lab	W0217-42	AE-228	AE-228	MADEP VPH 01/98	
Net Lab	W0217-42	AE-229	AE-229	MADEP VPH 01/98	
Net Lab	W0217-42	AE-111A	AE-111A	8260	
Net Lab	W0217-42	AE-112	AE-112	8260	
Net Lab	W0217-42	AE-113	AE-113	8260	
Net Lab	W0217-42	AE-114	AE-114	8260	
Net Lab	W0217-42	AE-115	AE-115	8260	
Net Lab	W0217-42	AE-218	AE-218	8260	
Net Lab	W0217-42	AE-219	AE-219	8260	
Net Lab	W0217-42	AE-220	AE-220	8260	
Net Lab	W0217-42	AE-221	AE-221	8260	
Net Lab	W0217-42	AE-222	AE-222	8260	
Net Lab	W0217-42	AE-225	AE-225	8260	

TABLE 11 - CAM COPLIANCE SUMMARY TABLE FOR DATA RELIED UPON FOR RESPONSE ACTION OUTCOME (RAO) CONCLUSIONS

Lab	Lab Job ID	Customer ID	Sample ID	Analytical Method	QC Conditions
Net Lab	W0217-42	AE-226	AE-226	8260	
Net Lab	W0217-42	AE-227	AE-227	8260	
Net Lab	W0217-42	AE-228	AE-228	8260	
Net Lab	W0217-42	AE-229	AE-229	8260	
Net Lab	W0211-21	AE-218 14.5	AE-218 14.5	MADEP EPH 98-1	
Net Lab	W0211-21	AE-219 10	AE-219 10	MADEP EPH 98-1	
Net Lab	W0211-21	AE-219 13/14	AE-219 13/14	MADEP EPH 98-1	
Net Lab	W0211-21	AE-220 12/14	AE-220 12/14	MADEP EPH 98-1	
Net Lab	W0211-21	AE-221 0/1	AE-221 0/1	MADEP EPH 98-1	
Net Lab	W0211-21	AE-222 6/7	AE-222 6/7	MADEP EPH 98-1	
Net Lab	W0211-21	AE-223 6/7	AE-223 6/7	MADEP EPH 98-1	
Net Lab	W0211-21	AE-223 13/14	AE-223 13/14	MADEP EPH 98-1	
Net Lab	W0211-21	AE-224 6/7	AE-224 6/7	MADEP EPH 98-1	
Net Lab	W0211-21	AE-224 14	AE-224 14	MADEP EPH 98-1	
Net Lab	W0211-21	AE-225	AE-225	MADEP EPH 98-1	
Net Lab	W0211-21	AE-226 12.5	AE-226 12.5	MADEP EPH 98-1	
Net Lab	W0211-21	AE-225	AE-225	6010B, 7471A	
Net Lab	W0211-21	AE-218 14.5	AE-218 14.5	8260	
Net Lab	W0211-21	AE-219 13/14	AE-219 13/14	8260	
Net Lab	W0211-21	AE-220 12/14	AE-220 12/14	8260	
Net Lab	W0211-21	AE-226 12.5	AE-226 12.5	8260	
Net Lab	W0211-21	AE-218 14.5	AE-218 14.5	MADEP VPH 01/98	
Net Lab	W0211-21	AE-219 10	AE-219 10	MADEP VPH 01/98	
Net Lab	W0211-21	AE-219 13/14	AE-219 13/14	MADEP VPH 01/98	
Net Lab	W0211-21	AE-220 12/14	AE-220 12/14	MADEP VPH 01/98	
Net Lab	W0211-21	AE-221 0/1	AE-221 0/1	MADEP VPH 01/98	
Net Lab	W0211-21	AE-222 6/7	AE-222 6/7	MADEP VPH 01/98	
Net Lab	W0211-21	AE-223 6/7	AE-223 6/7	MADEP VPH 01/98	
Net Lab	W0211-21	AE-223 13/14	AE-223 13/14	MADEP VPH 01/98	
Net Lab	W0211-21	AE-224 6/7	AE-224 6/7	MADEP VPH 01/98	
Net Lab	W0211-21	AE-224 14	AE-224 14	MADEP VPH 01/98	
Net Lab	W0211-21	AE-226 12.5	AE-226 12.5	MADEP VPH 01/98	
Net Lab	W0211-28	AE-227 14.5-15'	AE-227 14.5-15'	MADEP EPH 98-1	
Net Lab	W0211-28	AE-228 3-5'	AE-228 3-5'	MADEP EPH 98-1	
Net Lab	W0211-28	AE229 11-12.5'	AE229 11-12.5'	MADEP EPH 98-1	
Net Lab	W0211-28	AE-227 14.5-15'	AE-227 14.5-15'	MADEP VPH 01/98	
Net Lab	W0211-28	AE-228 3-5'	AE-228 3-5'	MADEP VPH 01/98	
Net Lab	W0211-28	AE229 11-12.5'	AE229 11-12.5'	MADEP VPH 01/98	
Net Lab	W0211-28	AE-227 14.5-15'	AE-227 14.5-15'	8260	
Net Lab	W0125-31	Composite Sidewall CSW-1	Composite Sidewall CSW-1	8082	
Net Lab	W0125-31	Excav. Floor EF-2	Excav. Floor EF-2	8082	
Net Lab	W0204-23	AE-101	AE-101	MADEP EPH 98-1	
Net Lab	W0204-23	AE-102	AE-102	MADEP EPH 98-1	
Net Lab	W0204-23	AE-103	AE-103	MADEP EPH 98-1	
Net Lab	W0204-23	AE-104	AE-104	MADEP EPH 98-1	
Net Lab	W0204-23	AE-106	AE-106	MADEP EPH 98-1	
Net Lab	W0204-23	AE-107	AE-107	MADEP EPH 98-1	
Net Lab	W0204-23	AE-108	AE-108	MADEP EPH 98-1	
Net Lab	W0204-23	AE-109	AE-109	MADEP EPH 98-1	
Net Lab	W0204-23	AE-101	AE-101	MADEP VPH 01/98	
Net Lab	W0204-23	AE-102	AE-102	MADEP VPH 01/98	

TABLE 11 - CAM COPLIANCE SUMMARY TABLE FOR DATA RELIED UPON FOR RESPONSE ACTION OUTCOME (RAO) CONCLUSIONS

Lab	Lab Job ID	Customer ID	Sample ID	Analytical Method	QC Conditions
Net Lab	W0204-23	AE-103	AE-103	MADEP VPH 01/98	
Net Lab	W0204-23	AE-104	AE-104	MADEP VPH 01/98	
Net Lab	W0204-23	AE-106	AE-106	MADEP VPH 01/98	
Net Lab	W0204-23	AE-107	AE-107	MADEP VPH 01/98	
Net Lab	W0204-23	AE-108	AE-108	MADEP VPH 01/98	
Net Lab	W0204-23	AE-109	AE-109	MADEP VPH 01/98	
Net Lab	W0121-12	AE-111A 0-3′	AE-111A 0-3′	MADEP EPH 98-1	
Net Lab	W0121-12	AE-111A 6-8′	AE-111A 6-8′	MADEP EPH 98-1	
Net Lab	W0121-12	AE-112 0-3′	AE-112 0-3′	MADEP EPH 98-1	
Net Lab	W0121-12	AE-112 6-7′	AE-112 6-7′	MADEP EPH 98-1	
Net Lab	W0121-12	AE-114 0-3′	AE-114 0-3′	MADEP EPH 98-1	
Net Lab	W0121-12	AE-114 6-7.5′	AE-114 6-7.5′	MADEP EPH 98-1	
Net Lab	W0121-12	AE-115 7-8′	AE-115 7-8′	MADEP EPH 98-1	
Net Lab	W0121-12	AE-113 7-9′	AE-113 7-9′	MADEP EPH 98-1	
Net Lab	W0121-12	AE-111A 0-3′	AE-111A 0-3′	MADEP VPH 01/98	
Net Lab	W0121-12	AE-111A 6-8′	AE-111A 6-8′	MADEP VPH 01/98	
Net Lab	W0121-12	AE-112 0-3′	AE-112 0-3′	MADEP VPH 01/98	
Net Lab	W0121-12	AE-112 6-7′	AE-112 6-7′	MADEP VPH 01/98	
Net Lab	W0121-12	AE-113 5-6′	AE-113 5-6′	MADEP VPH 01/98	
Net Lab	W0121-12	AE-114 0-3′	AE-114 0-3′	MADEP VPH 01/98	
Net Lab	W0121-12	AE-114 6-7.5′	AE-114 6-7.5′	MADEP VPH 01/98	
Net Lab	W0121-12	AE-115 7-8′	AE-115 7-8′	MADEP VPH 01/98	
Net Lab	V0910-31	AE-101	AE-101	MADEP EPH 98-1	
Net Lab	V0910-31	AE-102	AE-102	MADEP EPH 98-1	
Net Lab	V0910-31	AE-103	AE-103	MADEP EPH 98-1	
Net Lab	V0910-31	AE-104	AE-104	MADEP EPH 98-1	
Net Lab	V0910-31	AE-106	AE-106	MADEP EPH 98-1	
Net Lab	V0910-31	AE-107	AE-107	MADEP EPH 98-1	
Net Lab	V0910-31	AE-108	AE-108	MADEP EPH 98-1	
Net Lab	V0910-31	AE-109	AE-109	MADEP EPH 98-1	
Net Lab	V0910-31	AE-102	AE-102	8260	
Net Lab	V0910-31	AE-108	AE-108	8260	
Net Lab	V0910-31	AE-109	AE-109	8260	
Net Lab	V0910-31	AE-101	AE-101	MADEP VPH 01/98	
Net Lab	V0910-31	AE-102	AE-102	MADEP VPH 01/98	
Net Lab	V0910-31	AE-103	AE-103	MADEP VPH 01/98	
Net Lab	V0910-31	AE-104	AE-104	MADEP VPH 01/98	
Net Lab	V0910-31	AE-106	AE-106	MADEP VPH 01/98	
Net Lab	V0910-31	AE-107	AE-107	MADEP VPH 01/98	
Net Lab	V0910-31	AE-108	AE-108	MADEP VPH 01/98	
Net Lab	V0910-31	AE-109	AE-109	MADEP VPH 01/98	
Net Lab	V0610-18	AE-101	AE-101	MADEP EPH 98-1	
Net Lab	V0610-18	AE-102	AE-102	MADEP EPH 98-1	
Net Lab	V0610-18	AE-103	AE-103	MADEP EPH 98-1	
Net Lab	V0610-18	AE-104	AE-104	MADEP EPH 98-1	
Net Lab	V0610-18	AE-106	AE-106	MADEP EPH 98-1	
Net Lab	V0610-18	AE-107	AE-107	MADEP EPH 98-1	
Net Lab	V0610-18	AE-108	AE-108	MADEP EPH 98-1	
Net Lab	V0610-18	AE-109	AE-109	MADEP EPH 98-1	
Net Lab	V0610-18	AE-101	AE-101	MADEP VPH 01/98	
Net Lab	V0610-18	AE-102	AE-102	MADEP VPH 01/98	
Net Lab	V0610-18	AE-103	AE-103	MADEP VPH 01/98	

TABLE 11 - CAM COPLIANCE SUMMARY TABLE FOR DATA RELIED UPON FOR RESPONSE ACTION OUTCOME (RAO) CONCLUSIONS

Lab	Lab Job ID	Customer ID	Sample ID	Analytical Method	QC Conditions
Net Lab	V0610-18	AE-104	AE-104	MADEP VPH 01/98	
Net Lab	V0610-18	AE-106	AE-106	MADEP VPH 01/98	
Net Lab	V0610-18	AE-107	AE-107	MADEP VPH 01/98	
Net Lab	V0610-18	AE-108	AE-108	MADEP VPH 01/98	
Net Lab	V0610-18	AE-109	AE-109	MADEP VPH 01/98	
Net Lab	V0610-18	AE-102	AE-102	8260	
Net Lab	V0610-18	AE-108	AE-108	8260	
Net Lab	V0610-18	AE-109	AE-109	8260	
Net Lab	V0304-20	AE-101	AE-101	MADEP EPH 98-1	
Net Lab	V0304-20	AE-102	AE-102	MADEP EPH 98-1	
Net Lab	V0304-20	AE-103	AE-103	MADEP EPH 98-1	
Net Lab	V0304-20	AE-104	AE-104	MADEP EPH 98-1	
Net Lab	V0304-20	AE-106	AE-106	MADEP EPH 98-1	
Net Lab	V0304-20	AE-107	AE-107	MADEP EPH 98-1	
Net Lab	V0304-20	AE-108	AE-108	MADEP EPH 98-1	
Net Lab	V0304-20	AE-109	AE-109	MADEP EPH 98-1	
Net Lab	V0304-20	AE-101	AE-101	MADEP VPH 01/98	
Net Lab	V0304-20	AE-102	AE-102	MADEP VPH 01/98	
Net Lab	V0304-20	AE-103	AE-103	MADEP VPH 01/98	
Net Lab	V0304-20	AE-104	AE-104	MADEP VPH 01/98	
Net Lab	V0304-20	AE-106	AE-106	MADEP VPH 01/98	
Net Lab	V0304-20	AE-107	AE-107	MADEP VPH 01/98	
Net Lab	V0304-20	AE-108	AE-108	MADEP VPH 01/98	
Net Lab	V0304-20	AE-109	AE-109	MADEP VPH 01/98	
Net Lab	V0304-20	AE-102	AE-102	8260	
Net Lab	V0304-20	AE-108	AE-108	8260	
Net Lab	V0304-20	AE-109	AE-109	8260	
Net Lab	V0219-20A	AE101-0/3	AE101-0/3	6010B, 7471A	
Net Lab	V0219-20A	AE101-3/6.5	AE101-3/6.5	6010B, 7471A	
Net Lab	V0219-20A	AE102-0/3	AE102-0/3	6010B, 7471A	
Net Lab	V0219-20A	AE102-3/6	AE102-3/6	6010B, 7471A	
Net Lab	V0219-20A	AE103-0/3	AE103-0/3	6010B, 7471A	
Net Lab	V0219-20A	AE104-0/3	AE104-0/3	6010B, 7471A	
Net Lab	V0219-20A	AE104-3/6	AE104-3/6	6010B, 7471A	
Net Lab	V0219-20A	AE105-1/3	AE105-1/3	6010B, 7471A	
Net Lab	V0219-20A	AE106-3/6	AE106-3/6	6010B, 7471A	
Net Lab	V0219-20A	AE107-0/3	AE107-0/3	6010B, 7471A	
Net Lab	V0219-20A	AE107-3-5.5	AE107-3-5.5	6010B, 7471A	
Net Lab	V0219-20A	AE108-0/3	AE108-0/3	6010B, 7471A	
Net Lab	V0219-20A	AE108-3/6	AE108-3/6	6010B, 7471A	
Net Lab	V0219-20	AE101-0/3	AE101-0/3	MADEP EPH 98-1	
Net Lab	V0219-20	AE101-3/6.5	AE101-3/6.5	MADEP EPH 98-1	
Net Lab	V0219-20	AE102-0/3	AE102-0/3	MADEP EPH 98-1	
Net Lab	V0219-20	AE102-3/6	AE102-3/6	MADEP EPH 98-1	
Net Lab	V0219-20	AE103-0/3	AE103-0/3	MADEP EPH 98-1	
Net Lab	V0219-20	AE104-0/3	AE104-0/3	MADEP EPH 98-1	
Net Lab	V0219-20	AE104-3/6	AE104-3/6	MADEP EPH 98-1	
Net Lab	V0219-20	AE105-1/3	AE105-1/3	MADEP EPH 98-1	
Net Lab	V0219-20	AE106-3/6	AE106-3/6	MADEP EPH 98-1	
Net Lab	V0219-20	AE107-0/3	AE107-0/3	MADEP EPH 98-1	
Net Lab	V0219-20	AE107-3-5.5	AE107-3-5.5	MADEP EPH 98-1	
Net Lab	V0219-20	AE108-0/3	AE108-0/3	MADEP EPH 98-1	

TABLE 11 - CAM COPLIANCE SUMMARY TABLE FOR DATA RELIED UPON FOR RESPONSE ACTION OUTCOME (RAO) CONCLUSIONS

Lab	Lab Job ID	Customer ID	Sample ID	Analytical Method	QC Conditions
Net Lab	V0219-20	AE108-3/6	AE108-3/6	MADEP EPH 98-1	
Net Lab	V0219-20	AE-109-12/15	AE-109-12/15	8260	
Alpha Analytical Lab	9205029	J55-B1-GW103	9205029.1	5520 CDF	QC summary information page is missing (TYP)
Alpha Analytical Lab	9205029	J55-B1-GW103 (5pike Recovery)	9205029.15	5520 CDF	QC summary information page is missing (TYP)
Alpha Analytical Lab	9204989	J55-B1-GW103	9204989.1	8260, 5520 CDF	QC summary information page is missing (TYP)
Alpha Analytical Lab	9204986	J55-B2GW-101	9204986.1	8100M, 5520 CDF, 8260	
Alpha Analytical Lab	9204986	J55-B3GW-102	9204986.2	8100M, 5520 CDF, 8260	
Alpha Analytical Lab	9204986	J55-TP2'55101	9204986.3	8270, 5520 CDF, 2540 B, 3050, 6010, 7060, 7470, 7841, 8260	
Alpha Analytical Lab	9204986	J55-TP4'55102	9204986.4	8270, 5520 CDF, 2540 B, 3050, 6010, 7060, 7470, 7841, 8260	
Alpha Analytical Lab	9204986	J55-TP7'55103	9204986.5	8270, 5520 CDF, 2540 B, 3050, 6010, 7060, 7470, 7841, 8260, 7740	
Alpha Analytical Lab	9204986	TRIP BLANK	9204986.6	8260	QC summary information page is missing (TYP)
Alpha Analytical Lab	9204986	NA (5PIKE RECOVERY)	9204986.5PIKE	8260	
Alpha Analytical Lab	9207615	J55-RZ3-556-301	9207615.01	2540B, 9010, 9073, 3005/3050, 6010, 7060, 7470/7471, 7740, 7841, 8080, 8260, 8270	
Alpha Analytical Lab	9207615	J55-5B1-55-302	9207615.02	2540B, 9010, 9073, 3005/3050, 6010, 7060, 7470/7471, 7740, 7841, 8080, 8260, 8270	
Alpha Analytical Lab	9207615	J55-5B1-55-303	9207615.03	2540B, 9010, 9073, 3005/3050, 6010, 7060, 7470/7471, 7740, 7841, 8080, 8260, 8270	
Alpha Analytical Lab	9207615	J5S-RZ2-GW-401	9207615.04	9073, 8260, 8100M	
Alpha Analytical Lab	9207615	J55-RZ2-GW-402	9207615.05	8260	
Alpha Analytical Lab	9207615	J55-RZ3-GW-403	9207615.06	8260	QC summary information page is missing (TYP)
Alpha Analytical Lab	9207615	J55-RZ1-GW-404	9207615.07	9073, 8260, 8100M	
Alpha Analytical Lab	L9305398	55-5TOCKPILE-201	L9305398.01	2540B, 418.1, 1010, 7.3, 1311, 6010, 7470/7471, 8260, 8080, 8240, 8270, 8150	
Alpha Analytical Lab	L9305398	55-L1-202	L9305398.02	2540B, 418.1	
Alpha Analytical Lab	L9305398	55-L2-203	L9305398.03	2540B, 418.1	
Alpha Analytical Lab	L9305398	55-L3-204	L9305398.04	2540B, 418.1, 1010, 1311, 6010, 7470/7471, 8260, 8080	
Alpha Analytical Lab	L9305398	55-L4-205	L9305398.05	2540B, 418.1, 3005/3050, 6010, 7470/7471, 7740, 7841, 8260, 8270, 8080	
Alpha Analytical Lab	L9305398	55-L7-206	L9305398.06	2540B, 418.1, 3005/3050, 6010, 7470/7471, 7740, 7841, 8260, 8270, 8080	
Alpha Analytical Lab	L9305398	55-L8-207	L9305398.07	2540B, 418.1	
Alpha Analytical Lab	L9305398	55-L11-208	L9305398.08	2540B, 418.1	QC summary information page is missing (TYP)
Alpha Analytical Lab	L9305398	55-L12-209	L9305398.09	2540B, 418.1	
Alpha Analytical Lab	L0210589	RIZ 1-101502	L0210589-01	8260, 8270C-M, 98-1	
Alpha Analytical Lab	L0210589	ET 1-11502	L0210589-02	8260, 8270C-M, 98-1	
Alpha Analytical Lab	L0210589	ET 3-101502	L0210589-03	8260, 8270C-M, 98-1	
Alpha Analytical Lab	L0211671	GP-1-GW	L0211671-01	8260B, 98-1	
Alpha Analytical Lab	L0211671	GP-2-GW	L0211671-02	8260B, 98-1	
Alpha Analytical Lab	L0211671	GP-3-GW	L0211671-03	8260B, 98-1	
Alpha Analytical Lab	L0211671	GP-4-GW	L0211671-04	8260B, 98-1	
Alpha Analytical Lab	L0211671	GP-5-GW	L0211671-05	8260B, 98-1	
Alpha Analytical Lab	L0211671	GP-1-4-8'	L0211671-06	8260B, 2540G	
Alpha Analytical Lab	L0211671	GP-2-8-12'	L0211671-07	8260B, 2540G	
Alpha Analytical Lab	L0211671	GP-3-4-8'	L0211671-08	8260B, 2540G	
Alpha Analytical Lab	L0211671	GP-4-8-12'	L0211671-09	2540G	
Alpha Analytical Lab	L0211671	GP-4-8-12'	L0211671-09	8260B	
Alpha Analytical Lab	L0211671	GP-5-4-8'	L0211671-10	2540G	
Alpha Analytical Lab	L0211671	GP-5-4-8'	L0211671-10	8260B	
Alpha Analytical Lab	L0309656	5H-1, 3-4'	L0309656-01	2540G, 8260B, 98-1	Volatile Organics The analysis of Volatile Organics by EPA Method 8260B/5035 Low Level could not be performed on L0309656-03. -07 and -09 due to the high concentrations of target and non-target compounds present in the samples.
Alpha Analytical Lab	L0309656	5H-2, 3-4'	L0309656-02	ON HOLD	
Alpha Analytical Lab	L0309656	5H-2, 7-8'	L0309656-03	2540G, 8260B, 98-1	
Alpha Analytical Lab	L0309656	5H-3, 3-4'	L0309656-04	ON HOLD	

TABLE 11 - CAM COPLIANCE SUMMARY TABLE FOR DATA RELIED UPON FOR RESPONSE ACTION OUTCOME (RAO) CONCLUSIONS

Lab	Lab Job ID	Customer ID	Sample ID	Analytical Method	QC Conditions
Alpha Analytical Lab	L0309656	5H-3, 8-9'	L0309656-05	2540G, 8260B, 98-1	L0309656-03, -07 and -14 through -17 have elevated limits of detection due to the dilutions required by the elevated concentrations of non-target compounds in the samples. VPH L0309656-14 through -16 has elevated limits of detection due to the dilutions required by the elevated concentrations of target compounds in the samples. EPH L0309656-09 has elevated limits of detection due to the 5x dilution required by the elevated concentrations of target compounds in the sample. One of the LCS % recoveries for Nonane associated with L0309656-13, -14, -16 and -20 through -23 is 39%.
Alpha Analytical Lab	L0309656	5H-4, 3-4'	L0309656-06	ON HOLD	
Alpha Analytical Lab	L0309656	5H-4, 9-10'	L0309656-07	2540G, 8260B, 98-1	
Alpha Analytical Lab	L0309656	5H-5, 3-4'	L0309656-08	2540G, 8260B, 98-1	
Alpha Analytical Lab	L0309656	5H-6, 3-4'	L0309656-09	2540G, 8260B, 98-1	
Alpha Analytical Lab	L0309656	5H-7, 3-4'	L0309656-10	2540G, 8260B, 98-1	
Alpha Analytical Lab	L0309656	TRIP BLANK-VHP DELUX	L0309656-11		
Alpha Analytical Lab	L0309656	TRIP BLANK-CVOC LOW LEVEL	L0309656-12		
Alpha Analytical Lab	L0309656	5H-1	L0309656-13	8260B, 98-1	
Alpha Analytical Lab	L0309656	5H-2	L0309656-14	8260B, 98-1	
Alpha Analytical Lab	L0309656	5H-3	L0309656-15	8260B, 98-1	L0308656-17, -18, -19 were re-extracted within the method required holding time and re-analyzed due to quality control failure of the original batch. The surrogate % recovery for Chloro-Octadecane on each sample is below the acceptance criteria for the method. The original analysis of the samples confirms the low surrogate. The results of the re-analysis are reported, along with the acceptable quality control.
Alpha Analytical Lab	L0309656	5H-4	L0309656-16	8260B, 98-1	
Alpha Analytical Lab	L0309656	5H-5	L0309656-17	8260B, 98-1	
Alpha Analytical Lab	L0309656	5H-6	L0309656-18	8260B, 98-1	
Alpha Analytical Lab	L0309656	5H-7	L0309656-19	8260B, 98-1	
Alpha Analytical Lab	L0309656	GP-1	L0309656-20	8260B, 98-1	
Alpha Analytical Lab	L0309656	GP-4	L0309656-21	8260B, 98-1	
Alpha Analytical Lab	L0309656	ET-1	L0309656-22	8260B, 98-1	
Alpha Analytical Lab	L0309656	ET-2	L0309656-23	8260B, 98-1	
Alpha Analytical Lab	L0309656	TRIP BLANK-VPH DELUX	L0309656-24		
Alpha Analytical Lab	L0309656	TRIP BLANK-CVOC 8021	L0309656-25		
Alpha Analytical Lab	L0907055	5H-1	L0907055-01	59,VPH-04-1.1	MCP Related Narratives
				30, 2540G	
					VPH
					L0907055-01 fell short of the recommended 1:1 methanol:soil ratio, due to insufficient soil in the sample vial.
Net Lab	V0219-20	AE103-0/3	V0219-20	MADEP EPH 98-1	
Net Lab	V0219-20	AE101-3/6.5	V0219-20	MADEP EPH 98-1	
Net Lab	V0219-20	AE102-0/3	V0219-20	MADEP EPH 98-1	
Net Lab	V0219-20	AE102-3/6	V0219-20	MADEP EPH 98-1	
Net Lab	V0219-20	AE103-0/3	V0219-20	MADEP EPH 98-1	
Net Lab	V0219-20	AE104-0/3	V0219-20	MADEP EPH 98-1	
Net Lab	V0219-20	AE104-3/6	V0219-20	MADEP EPH 98-1	
Net Lab	V0219-20	AE105-1/3	V0219-20	MADEP EPH 98-1	
Net Lab	V0219-20	AE106-3/6	V0219-20	MADEP EPH 98-1	
Net Lab	V0219-20	AE107-0/3	V0219-20	MADEP EPH 98-1	
Net Lab	V0219-20	AE107-3-5.5	V0219-20	MADEP EPH 98-1	
Net Lab	V0219-20	AE108-0/3	V0219-20	MADEP EPH 98-1	
Net Lab	V0219-20	AE108-3/6	V0219-20	MADEP EPH 98-1	
Net Lab	V0219-20	AE109-12/15	V0219-20	MADEP EPH 98-1, 8260	
Net Lab	V0219-20A	AE103-0/3	V0219-20A	6010B, 7471A	
Net Lab	V0219-20A	AE101-3/6.5	V0219-20A	6010B, 7471A	
Net Lab	V0219-20A	AE102-0/3	V0219-20A	6010B, 7471A	
Net Lab	V0219-20A	AE102-3/6	V0219-20A	6010B, 7471A	
Net Lab	V0219-20A	AE103-0/3	V0219-20A	6010B, 7471A	
Net Lab	V0219-20A	AE104-0/3	V0219-20A	6010B, 7471A	
Net Lab	V0219-20A	AE104-3/6	V0219-20A	6010B, 7471A	
Net Lab	V0219-20A	AE105-1/3	V0219-20A	6010B, 7471A	
Net Lab	V0219-20A	AE106-3/6	V0219-20A	6010B, 7471A	
Net Lab	V0219-20A	AE107-0/3	V0219-20A	6010B, 7471A	
Net Lab	V0219-20A	AE107-3-5.5	V0219-20A	6010B, 7471A	

TABLE 11 - CAM COPLIANCE SUMMARY TABLE FOR DATA RELIED UPON FOR RESPONSE ACTION OUTCOME (RAO) CONCLUSIONS

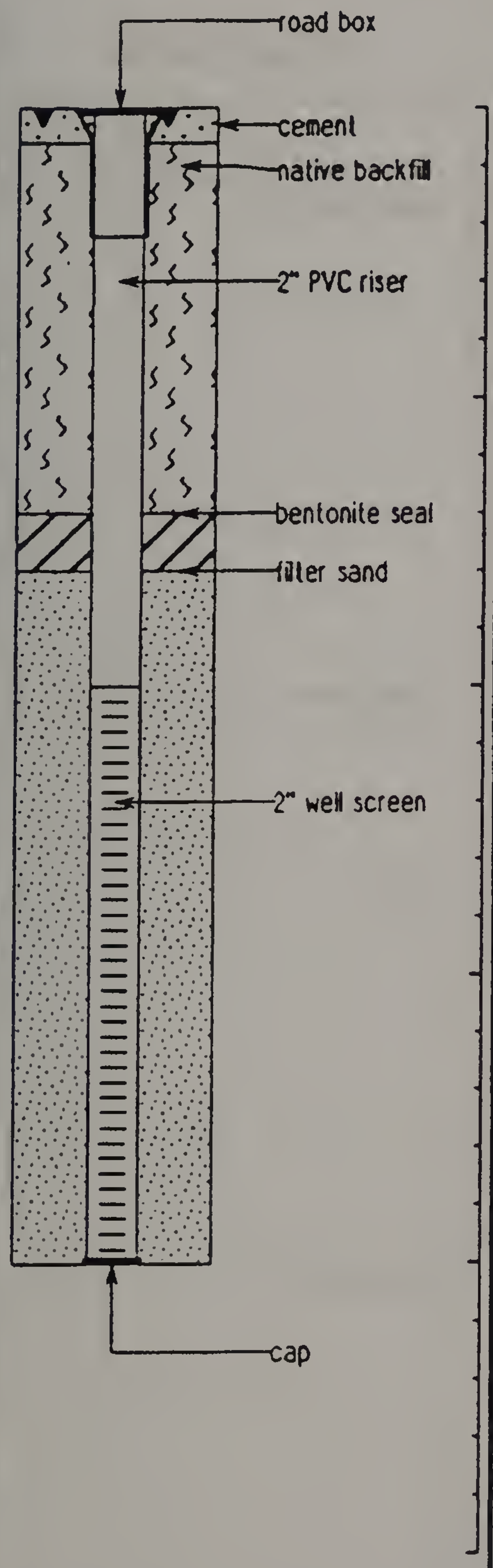
Lab	Lab Job ID	Customer ID	Sample ID	Analytical Method	QC Conditions
Net Lab	V0219-20A	AE108-0/3	V0219-20A	6010B, 7471A	
Net Lab	V0219-20A	AE108-3/6	V0219-20A	6010B, 7471A	

APPENDIX A

BORING LOGS

RIZ-1

Well Construction



Blow Counts	Recov/Advance	PID (ppm)	Depth (ft)	Sample Interval	Graphic Log	Materials Description
grab		0.4				Dark brown fine to medium grained sand, gravel, some silt
9 13 12 16	12/24"	0.4	5			Medium dense, dark brown fine grained silty sand and gravel
35 14 17 22	14/24"	0.4	10			Medium dense, brown fine grained silty sand ▽
4 6 6 11	14/24"	0.0	15			Medium dense, brown fine grained sand
			20			End of boring
			25			

BORING LOG AND WELL CONSTRUCTION FOR WELL RIZ-1

Project: Solomon/Somerville
Project Number: 2428-01
Location: Somerville, MA

Well Location: RIZ-1 was is located in the northwestern corner of the paved parking lot

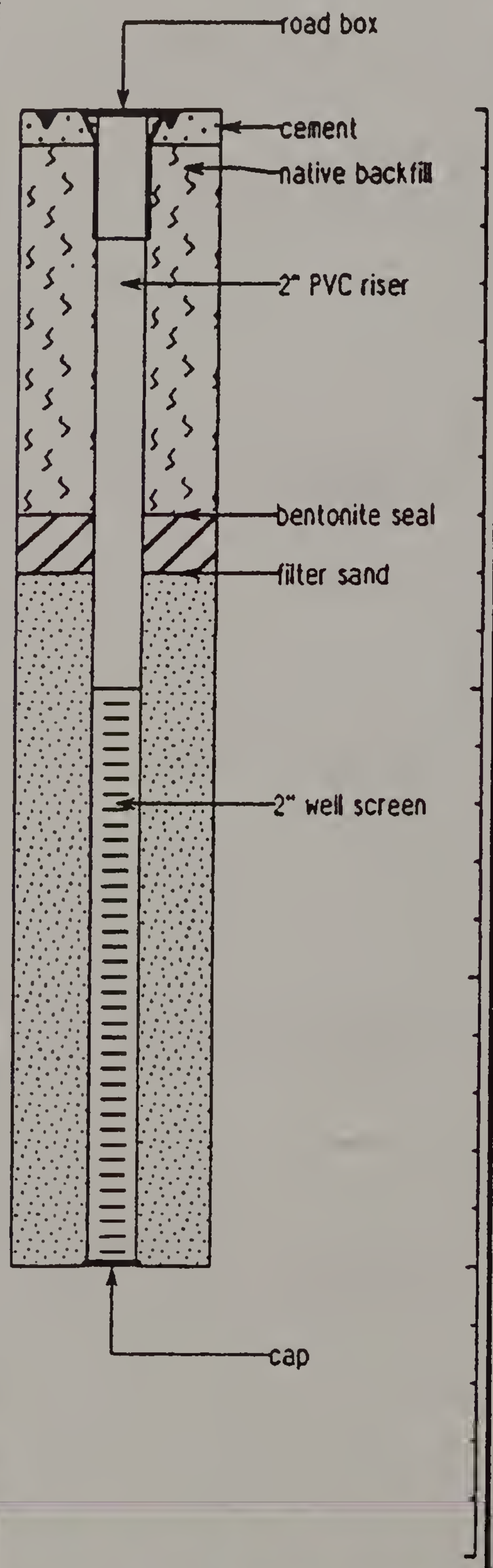
Rizzo Associates, Inc.

Engineers and Environmental Scientists
235 West Central Street, Natick, MA 01760

Installation Date: October 24, 1992
Depth of Boring: 20
Inspector: Cheryl A. Place
Depth to Water: 13.2
Contractor: Redwing
Surface Elev.:
Drilling Method: HSA
PID used: OVM

RIZ-2

Well Construction



Blow Counts	Recov/Advance	PID (ppm)	Depth (ft)	Sample Interval	Graphic Log	Materials Description
grab		0.0		I		Dark brown medium grained sand, gravel, some clay
5 6 6 5	18/24"	0.0	5	I		
9 11 12 17	14/24"	0.0	10	I		Medium dense, brown fine grained silty sand ▽
4 10 12 11	20/24"	0.0	15	I		
			20			End of boring
			25			

BORING LOG AND WELL CONSTRUCTION FOR WELL RIZ-2

Project: Solomon/Somerville

Project Number: 2428-01

Location: Somerville, MA

Well Location: RIZ-2 is located near the southeastern corner of the Site building

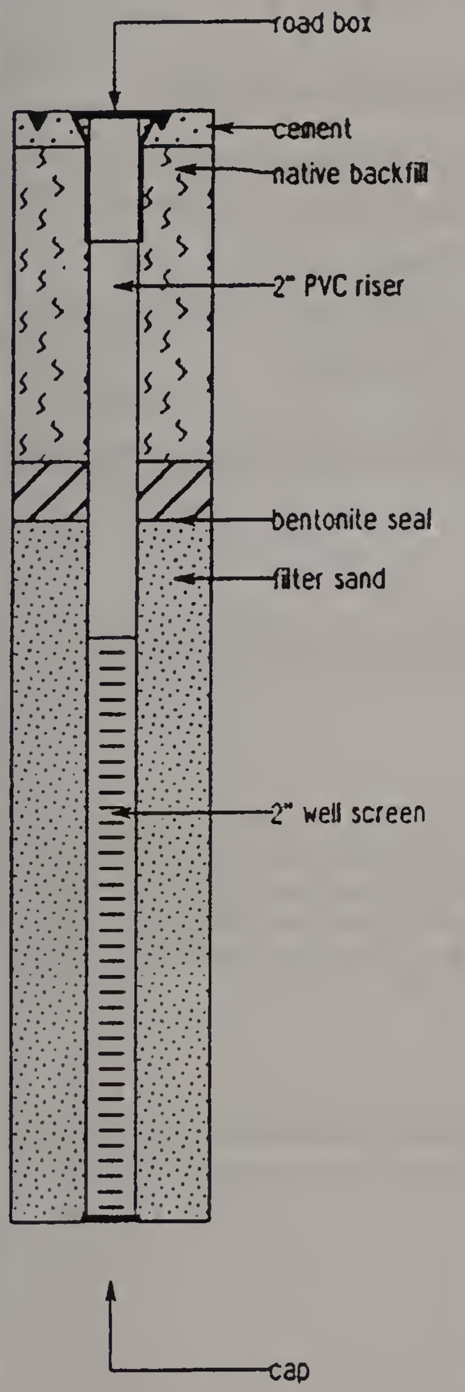
Rizzo Associates, Inc.

Engineers and Environmental Scientists
235 West Central Street, Natick, MA 01760

Installation Date: October 24, 1992	Depth of Boring: 20
Inspector: Cheryl A. Place	Depth to Water: 13.4
Contractor: Redwing	Surface Elev.:
Drilling Method: HSA	PID used: OVM

RIZ-3

Well Construction



Blow Counts	Recov/Advance	PID (ppm)	Depth (ft)	Sample Interval	Graphic Log	Materials Description
grab		0.0				Dark brown medium grained sand, gravel, some silt
10 17 19 20	20/24"	0.0	5			
5 8 6 7	20/24"	0.0	10			Medium dense, brown fine grained silty sand
						▽
2 3 5 8	22/24"	0.0	15			
			20			End of boring
			25			

BORING LOG AND WELL CONSTRUCTION FOR WELL RIZ-3

Project: Solomon/Somerville
Project Number: 2428-01
Location: Somerville, MA

Well Location: RIZ-3 is located on the Laurel Street Parcel

Rizzo Associates, Inc.
Engineers and Environmental Scientists
235 West Central Street, Natick, MA 01760

Installation Date: October 24, 1992
Inspector: Cheryl A. Place
Contractor: Redwing
Drilling Method: HSA
Depth of Boring: 20
Depth to Water: 13.4
Surface Elev.:
PID used: OVM

one inch'!

Rizzo Associates, Inc.

ENGINEERS AND ENVIRONMENTAL SCIENTISTS
One Grant Street, Framingham, MA 01701

Boring Log and Well Diagram

Boring #: GP-1

PROJECT INFORMATION

Project Name:	*John Solomon, Inc.*
Site Location:	*515 Somerville Avenue* *Somerville, MA*
Project Number:	*2428-07*
Date:	*11/13/02*
Inspector:	*JLD*

DRILLING INFORMATION

Drilling Company:	*Soil Exploration*
Driller:	*Richie and Brian*
Drill Rig:	*Track-mounted*
Drilling Method:	*GeoProbe*
Sampling Method:	*Direct Push*
Hammer Size:	*NA*

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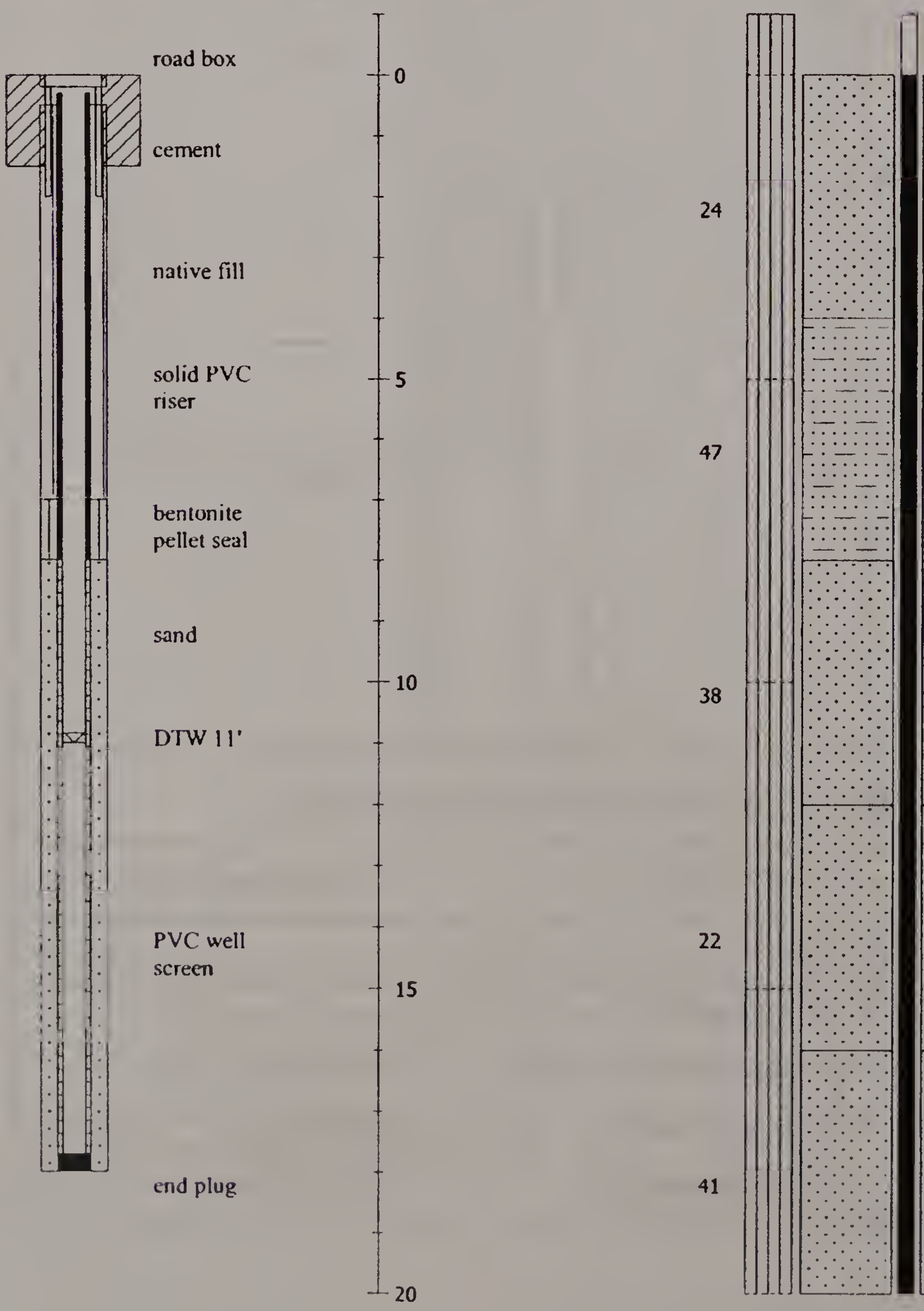
Well Construction | **Depth (ft.)** | **Blow Counts** | **Recovery/Advance** | **PID (ppm)** | **Sampled Intervals** | **Graphic Log** | **Material Description**



PID (ppm)	Material Description
24	SAND: 8" concrete and rubble grades to large rubble (backfill), no ash, brick, concrete pieces. 3' - 4' brown medium sand, well sorted, some silt, no odor, dry. Note black topsoil band between rubble and sand, no odor.
47	SAND AND SILT: Brown/dark brown medium silty sand, well sorted, brick noted at 6', no odor, dry.
38	SAND: Light brown/dark brown medium sand, some silt, small to large cobbles at 9'-11', sand with gray silt at 12', moist at 12'.
22	SAND: Medium brown to gray fine to coarse sand, some fine silt, moist, no odor, GW at 12'.
41	SAND: Brown sand, fine to coarse, with silt, wet, no odor.

Rizzo Associates, Inc.
ENGINEERS AND ENVIRONMENTAL SCIENTISTS
One Grant Street, Framingham, MA 01701

Boring Log and Well Diagram

Boring #: GP-2

PROJECT INFORMATION

Project Name: *John Solomon, Inc.*
Site Location: *515 Somerville Avenue*
Somerville, MA
Project Number: *2428-07*
Date: *11/13/02*
Inspector: *JLD*

DRILLING INFORMATION

Drilling Company: *Soil Exploration*
Driller: *Richie and Brian*
Drill Rig: *Track-mounted*
Drilling Method: *GeoProbe*
Sampling Method: *Direct Push*
Hammer Size: *NA*

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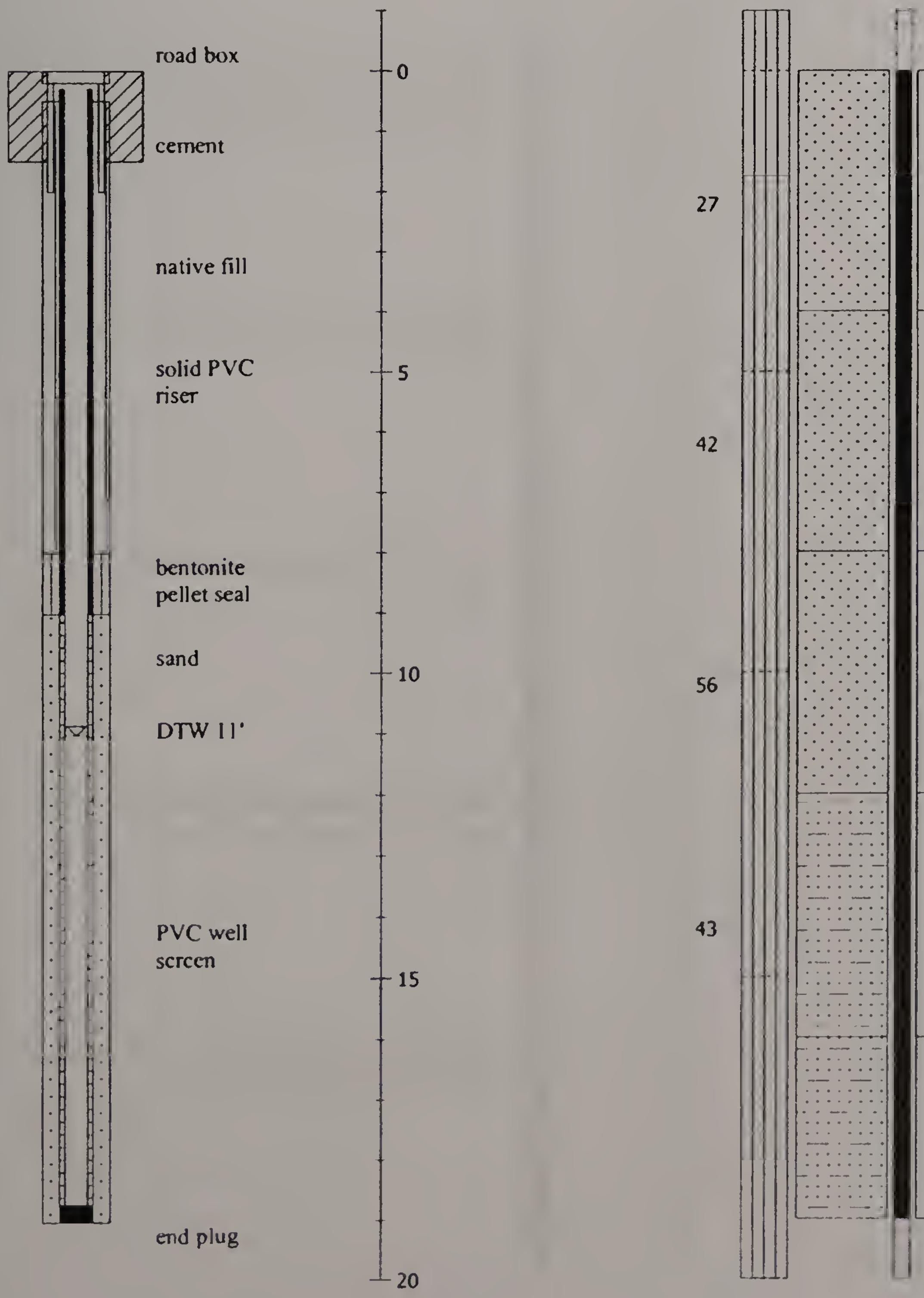
Well Construction | Depth (ft.) | Blow Counts | Recovery/Advance | PID (ppm) | Graphic Log | Sampled Intervals | **Material Description**



PID (ppm)	Material Description
27	SAND: 3" concrete. Very loose fill, brick, ash, brown sand with small to large cobbles, dry, no odor.
42	SAND: Light brown to dark brown medium to coarse sand, trace cobbles, little silt, dry, no odor.
56	SAND: Light brown medium to coarse sand, dry, (moist at 12'), no odor. 8' possible brick.
43	SAND AND SILT: Light brown to gray medium to coarse sand and silt, moist to wet, no odor.
	SAND AND SILT: Mostlly gray fine to coarse silt and silt, poorly sorted, wet, no odor.

Rizzo Associates, Inc.

ENGINEERS AND ENVIRONMENTAL SCIENTISTS
One Grant Street, Framingham, MA 01701

Boring Log and Well Diagram

Boring #: GP-3

PROJECT INFORMATION

Project Name: *John Solomon, Inc.*
Site Location: *515 Somerville Avenue*
Somerville, MA
Project Number: *2428-07*
Date: *11/13/02*
Inspector: *JLD*

DRILLING INFORMATION

Drilling Company: *Soil Exploration*
Driller: *Richie and Brian*
Drill Rig: *Track-mounted*
Drilling Method: *GeoProbe*
Sampling Method: *Direct Push*
Hammer Size: *NA*

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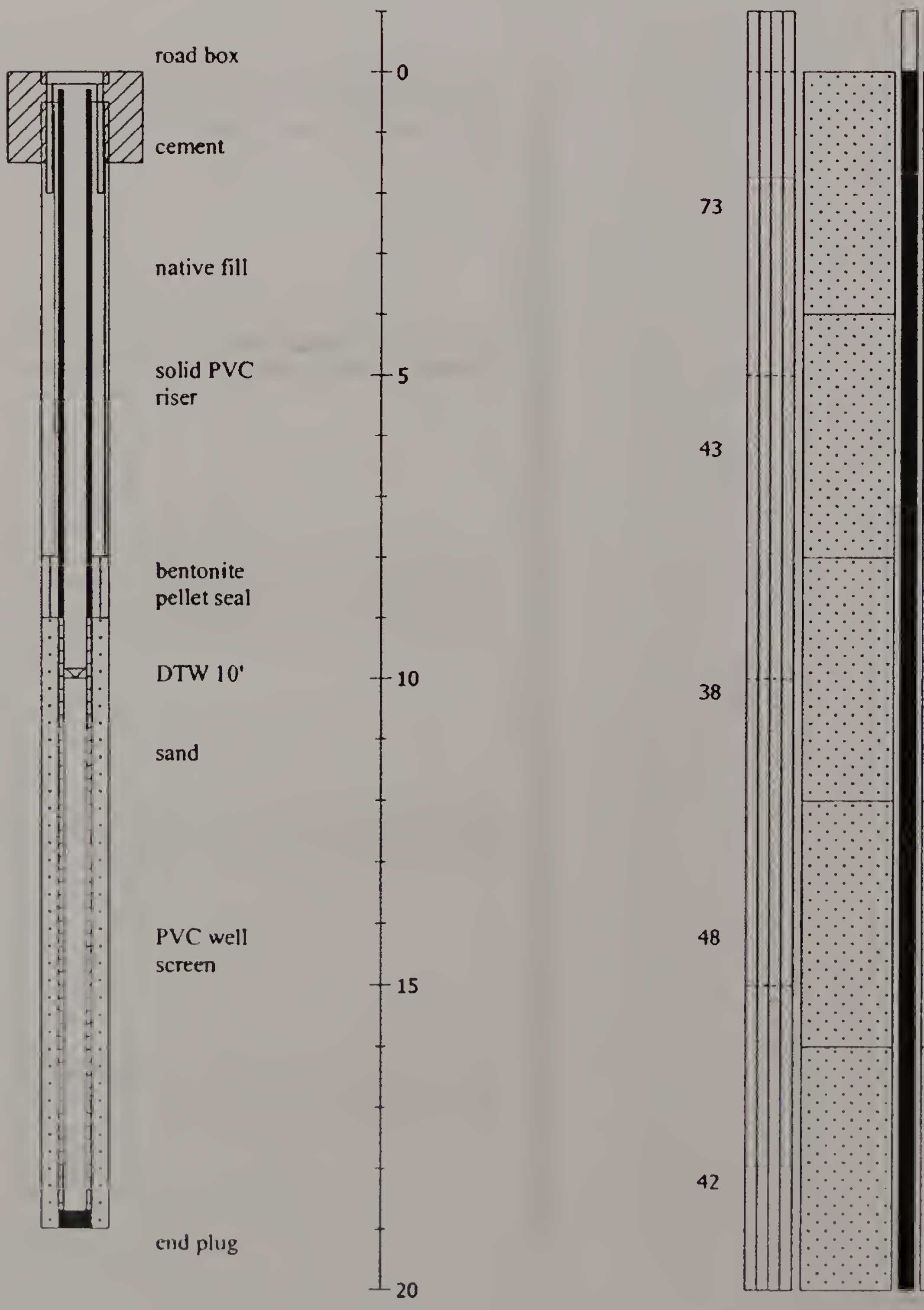
Well Construction | Depth (ft.) | Blow Counts | Recovery/Advance | PID (ppm) | Sampled Intervals | Graphic Log | **Material Description**



PID (ppm)	Material Description
73	SAND: 3" concrete. Fine to coarse light brown/brown sand, no odor, dry.
43	SAND: Fine to coarse light brown/brown sand, no odor, dry.
38	SAND: Medium to coarse brown sand, dry, no odor.
48	SAND: 12'-13' Brown medium sand, dry. 12'-16' brown clay with sand, wet, no odor.
42	SAND: Brown fine to coarse sand, well sorted, slight silt, wet to dry, no odor.

Rizzo Associates, Inc.
ENGINEERS AND ENVIRONMENTAL SCIENTISTS
One Grant Street, Framingham, MA 01701

Boring Log and Well Diagram

Boring #: GP-4

PROJECT INFORMATION

Project Name: *John Solomon, Inc.*
Site Location: *515 Somerville Avenue*
Somerville, MA
Project Number: *2428-07*
Date: *11/13/02*
Inspector: *JLD*

DRILLING INFORMATION

Drilling Company: *Soil Exploration*
Driller: *Richie and Brian*
Drill Rig: *Track-mounted*
Drilling Method: *GeoProbe*
Sampling Method: *Direct Push*
Hammer Size: *NA*

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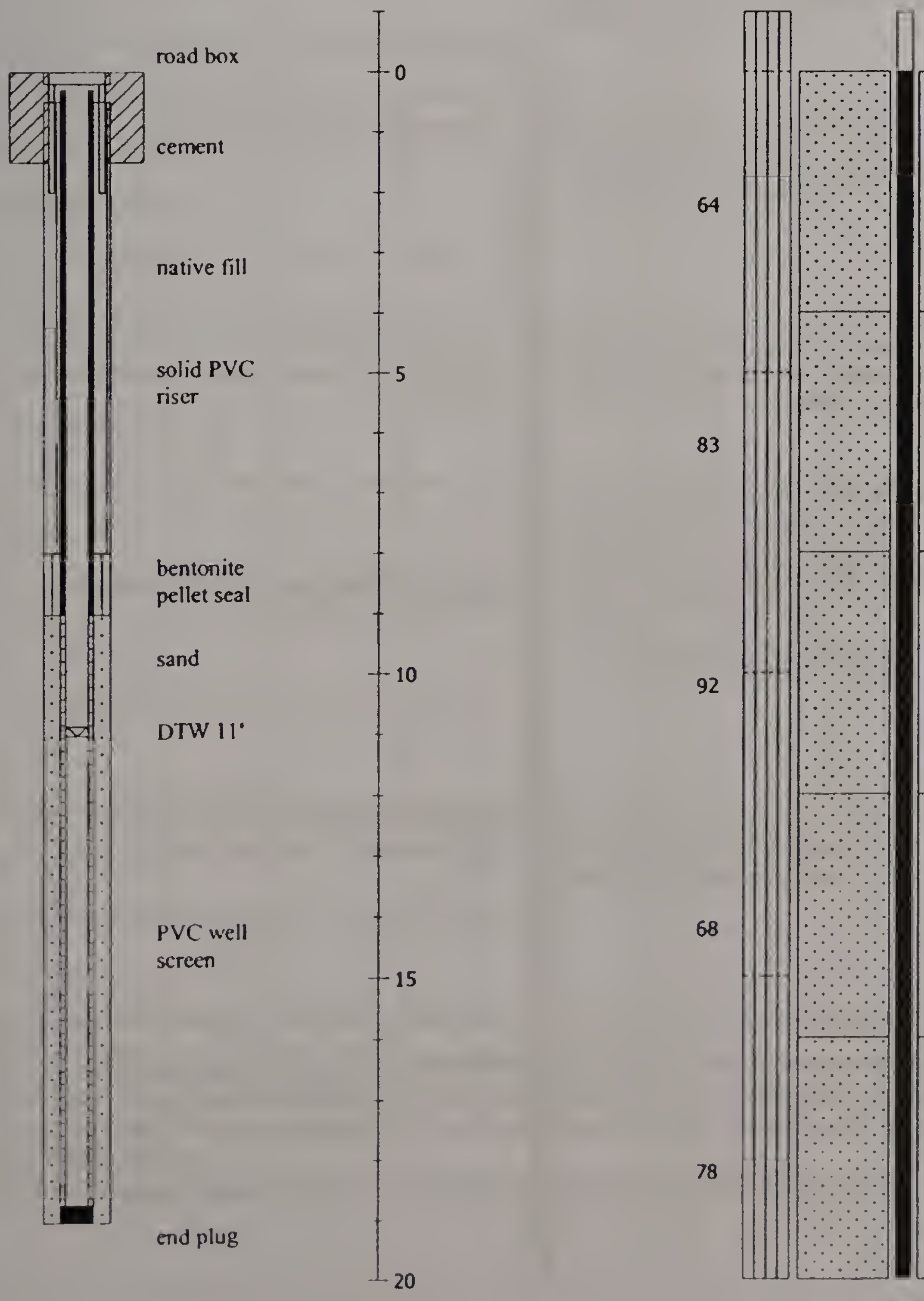
Well Construction | **Depth (ft.)** | **Blow Counts** | **Recovery/Advance** | **PID (ppm)** | **Sampled Intervals** | **Graphic Log** | **Material Description**



Blow Counts	Recovery/Advance	PID (ppm)	Material Description
		64	SAND: 3" concrete. Dark brown fine to medium sand, well sorted, some silt, dry, no odor, bits of brick.
		83	SAND: Light brown/dark brown medium to coarse sand, well sorted, some silt, dry, no odor, brick at 4'.
		92	SAND: Buff/light brown medium to coarse sand, well sorted, brick at 8', 1" of clay, moist at 12'.
		68	SAND: Light brown medium to coarse sand, well sorted, 2" layer of silt and fine sand at 14', no odor, moist to dry.
		78	SAND: Light brown/brown medium to coarse sand, wet to dry, groundwater at 13', slight silt, no odor.

Rizzo Associates, Inc.
ENGINEERS AND ENVIRONMENTAL SCIENTISTS
One Grant Street, Framingham, MA 01701

Boring Log and Well Diagram

Boring #: GP-5

PROJECT INFORMATION

Project Name: *John Solomon, Inc.*
Site Location: *515 Somerville Avenue*
Somerville, MA
Project Number: *2428-07*
Date: *11/13/02*
Inspector: *JLD*

DRILLING INFORMATION

Drilling Company: *Soil Exploration*
Driller: *Richie and Brian*
Drill Rig: *Track-mounted*
Drilling Method: *GeoProbe*
Sampling Method: *Direct Push*
Hammer Size: *NA*

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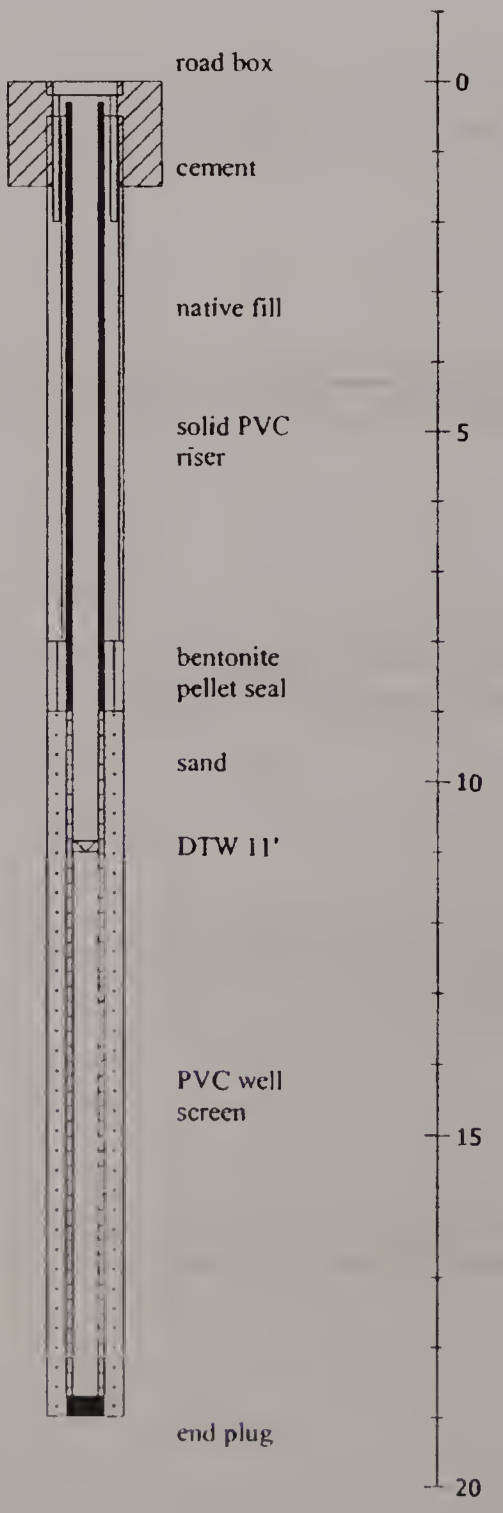
Well Construction



Depth (ft.)	Blow Counts	Recovery/Advance	PID (ppm)	Sampled Intervals	Graphic Log	Material Description
0–4			50			SAND: 3" concrete. Brown/dark brown medium to coarse sand, bit of brick, dry, no odor.
4–8			70			SAND: Brown medium to coarse sand, slight silt, well sorted, grades to gray silt with trace clay at 7', no odor, dry.
8–12			61			SAND: Buff/light brown sand with slight silt, no odor, dry, more silty at 11'.
12–16			75			SAND: Brown coarse sand with slight silt, band of silt with sand at 13', no odor, moist, groundwater at 12'.
16–20			60			SAND: Brown medium to coarse sand, wet, no odor.

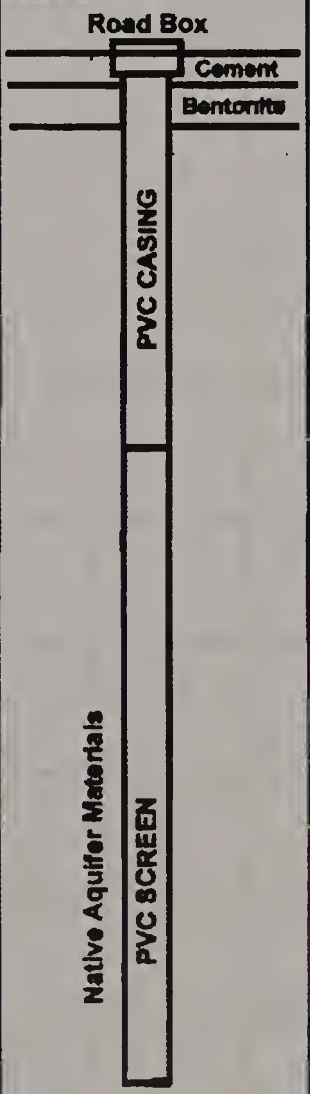
ACTION ENVIRONMENTAL

184 Riverview Ave. Phone: 781-893-9922
Waltham, MA 02453 Fax: 781-893-6622
Environmental Consultants & Engineers

PROJECT NO.: 3120
LOCATION: 515 Somerville Ave., Somerville, MA.
7.7' E of W fence, 11.3' S of corner to drive, and 75.8' N of S fence.

SHEET: 1 of 1
DATE: 02/18/2010
BORING NO.: AE-101

BORING CO.: Bronson Drilling		CASING	SAMPLER	GROUNDWATER		
FOREMAN: Dan Bronson	TYPE	Steel Corer	4' acrylic sleeve	DATE	DEPTH (Feet)	STABIL. TIME
ACTION Geologist: Robert Houghton	SIZE I.D.	1.625"	1.625"	03/02/10	6.21	12 days
Drilling Equipment: Tractor-mounted Push Probe						

DEPTH (Feet)	SAMPLE Recovery/Depth	BLOWS Per 6"	STRATA CHANGE	SOIL/ROCK STRATIGRAPHY[1]	WELL CONSTRUCTION	FIELD TEST[2]	SAMPLE NO.
0	39" / 0 - 4'			Light Gravel cover SAND: fine-coarse grained, some silt, some rounded gravel, some coal, medium orange/brown, slight moist, no odor	 Road Box Cement Bentonite PVC CASING Native Aquifer Materials PVC SCREEN		
2						ND	1-2' bg
4	48" / 4 - 8'			SAND: fine-coarse grained, slight silt, medium light brown increasing orange with depth, dry, no odor		ND	4-5' bg
6				SAND: fine-medium grained, finely laminated, some silt, light gray-brown, wet below 7.3', no odor			
8	48" / 8 ' 12'					0.1	7-8' bg
10				SAND: fine-coarse grained, stratified, medium light brown with micro-strata of reddish orange, saturated, no odor		0.3	9-10' bg
12	48" / 12 - 16'					ND	12-13' bg
14				SAND: medium-coarse grained, laminated, coarsest in oxide layers, medium light brown, saturated, no odor SAND: Silty, gray-brown, wet, no odor			
16				SAND: As at 13-14.5' bg End of Exploration = 16 feet		ND	15-16' bg
18							
20				Monitoring Well materials are 1.0" I.D. PVC, 10' 0.001-slot screen and 6' casing, aluminum roadbox			
22							

[1] Soil Strata Identification: Evaluated according to Burmister Classification System.

[2] Field Test: Photoionization Detector (PID) readings in parts per million by volume (ppmv) by Massachusetts Department of Environmental Protection (MassDEP) Jar Headspace Method, according to Bureau of Waste Site Cleanup Policies #WSC-94-400 and #WSC-402-96.

ND = Not Detected above analytical method lower detection limit (0.01 ppmv)

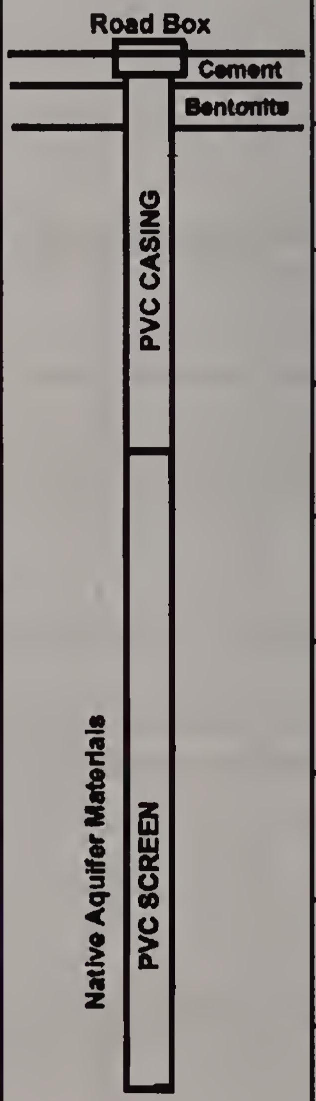
ACTION ENVIRONMENTAL

184 Riverview Ave. Phone: 781-893-9922
Waltham, MA 02453 Fax: 781-893-6622
Environmental Consultants & Engineers

PROJECT NO.: 3120
LOCATION: 515 Somerville Ave., Somerville, MA.
55.8' E of W fence, 62.6' N of S fence.

SHEET: 1 of 1
DATE: 02/18/2010
BORING NO.: AE-102

		CASING	SAMPLER	GROUNDWATER		
BORING CO.: Bronson Drilling						
FOREMAN: Dan Bronson	TYPE	Steel Corer	4' acrylic sleeve	DATE	DEPTH (Feet)	STABIL. TIME
ACTION Geologist: Robert Houghton	SIZE I.D.	1.625"	1.625"	03/02/10	6.94	12 days
Drilling Equipment: Tractor-mounted Push Probe						

DEPTH (Feet)	SAMPLE Recovery/Depth	BLOWS Per 6"	STRATA CHANGE	SOIL/ROCK STRATIGRAPHY[1]	WELL CONSTRUCTION	FIELD TEST[2]	SAMPLE NO.
0	42" / 0 - 4'			Light Gravel cover SAND: fine-coarse grained, some silt, some rounded gravel, some coal and asphalt, dark brown, slight moist			
2				SAND: fine-medium grained, slight silt, light-medium orange brown increasing orange with depth, dry, no odor		ND	1-2' bg
4	48" / 4 - 8'					ND	4-5' bg
6				SAND: fine-medium grained, finely laminated, some silt, light brown, wet below 7.5', no odor		ND	6-7" bg
8	35" / 8 ' 12'			SAND: fine-medium grained, stratified, light grayish brown, occasional lamina of coarse sand, saturated, no odor			
10						ND	9-10' bg
12	48" / 12 - 16'					ND	12-13' bg
14							
16				End of Exploration = 16 feet		ND	15-16' bg
18							
20				Monitoring Well materials are 1.0" I.D. PVC, 10' 0.001-slot screen and 6' casing, aluminum roadbox			
22							

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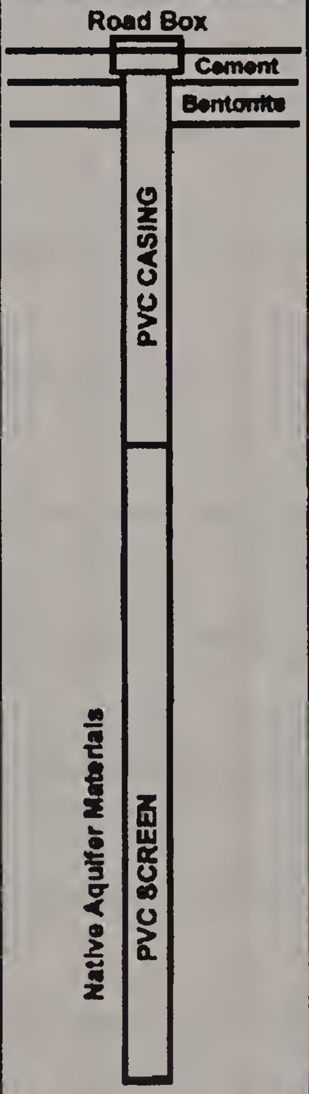
[1] Soil Strata Identification: Evaluated according to Burmister Classification System.

[2] Field Test: Photoionization Detector (PID) readings in parts per million by volume (ppmv) by Massachusetts Department of Environmental Protection (MassDEP) Jar Headspace Method, according to Bureau of Waste Site Cleanup Policies #WSC-94-400 and #WSC-402-96.

ND = Not Detected above analytical method lower detection limit (0.01 ppmv)

ACTION ENVIRONMENTAL 184 Riverview Ave. Phone: 781-893-9922 Waltham, MA 02453 Fax: 781-893-6622 *Environmental Consultants & Engineers*	PROJECT NO.: 3120 LOCATION: 515 Somerville Ave., Somerville, MA. 10.7' N of S fenceline and 101.9' E of SW corner of the Site fenceline	SHEET: 1 of 1 DATE: 02/18/2010 BORING NO.: AE-103

		CASING	SAMPLER	GROUNDWATER		
BORING CO.: Bronson Drilling						
FOREMAN: Dan Bronson	TYPE	Steel Corer	4' acrylic sleeve	DATE	DEPTH (Feet)	STABIL. TIME
ACTION Geologist: Robert Houghton	SIZE I.D.	1.625"	1.625"	03/02/10	8.72	12 days
Drilling Equipment: Tractor-mounted Push Probe						

DEPTH (Feet)	SAMPLE Recovery/Depth	BLOWS Per 6"	STRATA CHANGE	SOIL/ROCK STRATIGRAPHY[1]	WELL CONSTRUCTION	FIELD TEST[2]	SAMPLE NO.
0	38" / 0 - 4'			Light Gravel cover SAND: fine-coarse grained, some silt, some rounded gravel, some coal and asphalt, dark brown, slight moist	 Road Box Cement Bentonite PVC CASING Native Aquifer Materials PVC SCREEN		
2				SAND: fine-coarse grained, some silt and gravel, compact, slight moisture, no odor, medium dark brown, slight coal		ND	1-2' bg
4	38" / 4 - 8'					ND	4-5' bg
6				SAND: fine-coarse grained, some silt, moderate coal and abundant brick, dark brown at top, medium brown at base, dry, no odor		ND	6-7" bg
8	41" / 8 ' 12'			SAND: fine-medium grained, some silt, light brown, slightly moist, stratified, no odor			
10				SAND: fine-medium grained, silty, stratified, light grayish brown, occasional lamina of coarse sand, saturated, no odor, near top rare orange-colored lenses		ND	9-10' bg
12	48" / 12 - 16'					ND	12-13' bg
14				SAND: medium-coarse grained, gray, cross-bedded, saturated, no odor			
16				End of Exploration = 16 feet		ND	15-16' bg
18							
20				Monitoring Well materials are 1.0" I.D. PVC, 10' 0.001-slot screen and 6' casing, aluminum roadbox			
22							

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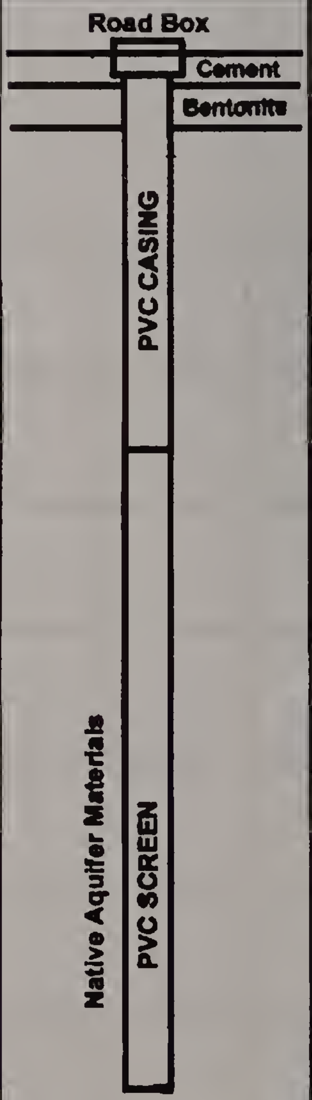
[1] Soil Strata Identification: Evaluated according to Burmister Classification System.

[2] Field Test: Photoionization Detector (PID) readings in parts per million by volume (ppmv) by Massachusetts Department of Environmental Protection (MassDEP) Jar Headspace Method, according to Bureau of Waste Site Cleanup Policies #WSC-94-400 and #WSC-402-96.

ND = Not Detected above analytical method lower detection limit (0.01 ppmv)

ACTION ENVIRONMENTAL 184 Riverview Ave. Phone: 781-893-9922 Waltham, MA 02453 Fax: 781-893-6622 *Environmental Consultants & Engineers*	PROJECT NO.: 3120 LOCATION: 515 Somerville Ave., Somerville, MA. 13.75 ' N of S fenceline and 35.5' W of E fence	SHEET: 1 of 1 DATE: 02/18/2010 BORING NO.: AE-104

BORING CO.: Bronson Drilling		CASING	SAMPLER	GROUNDWATER		
FOREMAN: Dan Bronson	TYPE	Steel Corer	4' acrylic sleeve	DATE	DEPTH (Feet)	STABIL. TIME
ACTION Geologist: Robert Houghton	SIZE I.D.	1.625"	1.625"	03/02/10	10.13	12 days
Drilling Equipment: Tractor-mounted Push Probe						

DEPTH (Feet)	SAMPLE Recovery/Depth	BLOWS Per 6"	STRATA CHANGE	SOIL/ROCK STRATIGRAPHY[1]	WELL CONSTRUCTION	FIELD TEST[2]	SAMPLE NO.
0	28" / 0 - 4'			Light Gravel cover (purple) LOAM: silty, with some gravel (concrete fragments), olive brown, slightly moist, no odor	 Road Box Cement Bentonite PVC CASING Native Aquifer Materials PVC SCREEN		
2						ND	1-2' bg
4	36" / 4 - 8'			SAND: fine-coarse grained, some silt, some gravel, moderate coal and brick, dark brown, dry		ND	4-5' bg
6				SAND: as above except medium orange-brown SAND: fine-medium grained, some silt, light olive brown, slight moist, no odor		ND	6-7" bg
8	42" / 8 ' 12'			SAND: fine-medium grained, silty, light brown, slightly moist, no odor		ND	8-9' bg
10				SAND: fine-coarse grained, light brown to grayish brown, saturated below 11', no odor		ND	9-10' bg
12	48" / 12 - 16'			SAND: fine-coarse grained, cross-bedded, gray, saturated, no odor		ND	12-13' bg
14							
16				End of Exploration = 16 feet		ND	15-16' bg
18							
20				Monitoring Well materials are 1.0" I.D. PVC, 10' 0.001-slot screen and 6' casing, aluminum roadbox			
22							

[1] Soil Strata identification: Evaluated according to Burmister Classification System.

[2] Field Test: Photoionization Detector (PID) readings in parts per million by volume (ppmv) by Massachusetts Department of Environmental Protection (MassDEP) Jar Headspace Method, according to Bureau of Waste Site Cleanup Policies #WSC-94-400 and #WSC-402-96.

ND = Not Detected above analytical method lower detection limit (0.01 ppmv)

ACTION ENVIRONMENTAL 184 Riverview Ave. Phone: 781-893-9922 Waltham, MA 02453 Fax: 781-893-6622 *Environmental Consultants & Engineers*	PROJECT NO.: 3120 LOCATION: 515 Somerville Ave., Somerville, MA. 44.1' W of E fenceline and 55.7' S of N fence	SHEET: 1 of 1 DATE: 02/18/2010 BORING NO.: AE-105

		CASING	SAMPLER	GROUNDWATER		
BORING CO.: Bronson Drilling						
FOREMAN: Dan Bronson	TYPE	Steel Corer	4' acrylic sleeve	DATE	DEPTH (Feet)	STABIL. TIME
ACTION Geologist: Robert Houghton	SIZE I.D.	1.625"	1.625"			
Drilling Equipment: Tractor-mounted Push Probe						

DEPTH (Feet)	SAMPLE Recovery/Depth	BLOWS Per 6"	STRATA CHANGE	SOIL/ROCK STRATIGRAPHY[1]	WELL CONSTRUCTION	FIELD TEST[2]	SAMPLE NO.
0	32" / 0 - 4'			Light Gravel cover SAND: fine-coarse grained, some gravel, medium to dark brown, slightly moist, no odor			
2				SAND: fine-coarse grained, abundant brick, some coal and ash, multi-colored black, brown, gray, dry, no odor		ND	1-2' bg
4	12" / 4 - 5'					ND	4-5' bg
6							
8							
10							
12							
14							
16							
18							
20							
22							

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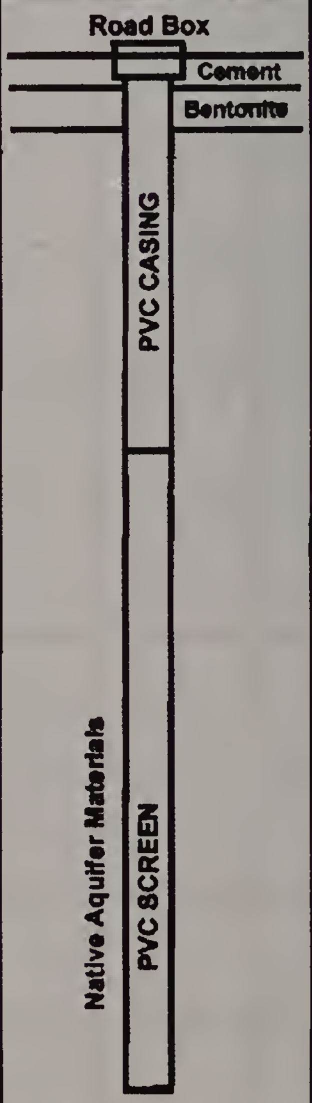
[1] Soil Strata Identification: Evaluated according to Burmister Classification System.

[2] Field Test: Photoionization Detector (PID) readings in parts per million by volume (ppmv) by Massachusetts Department of Environmental Protection (MassDEP) Jar Headspace Method, according to Bureau of Waste Site Cleanup Policies #WSC-94-400 and #WSC-402-96.

ND = Not Detected above analytical method lower detection limit (0.01 ppmv)

ACTION ENVIRONMENTAL 184 Riverview Ave. Phone: 781-893-9922 Waltham, MA 02453 Fax: 781-893-6622 *Environmental Consultants & Engineers*	PROJECT NO.: 3120 LOCATION: 515 Somerville Ave., Somerville, MA. 37.5 ' W of E fenceline and 69.1' S of N fence	SHEET: 1 of 1 DATE: 02/18/2010 BORING NO.: AE-106

		CASING	SAMPLER	GROUNDWATER		
BORING CO.: Bronson Drilling						
FOREMAN: Dan Bronson	TYPE	Steel Corer	4' acrylic sleeve	DATE	DEPTH (Feet)	STABIL. TIME
ACTION Geologist: Robert Houghton	SIZE I.D.	1.625"	1.625"	03/02/10	9.28	12 days
Drilling Equipment: Tractor-mounted Push Probe						

DEPTH (Feet)	SAMPLE Recovery/Depth	BLOWS Per 6"	STRATA CHANGE	SOIL/ROCK STRATIGRAPHY[1]	WELL CONSTRUCTION	FIELD TEST[2]	SAMPLE NO.
0	21" / 0 - 4'			Light Gravel cover (purple) SAND: fine-coarse grained, some silt, some gravel, some coal, abundant brick, some ash, dark to medium brown slightly moist, no odor	 Road Box Cement Bentonite PVC CASING Native Aquifer Materials PVC SCREEN		
2						ND	1-2' bg
4	43" / 4 - 8'					ND	4-5' bg
6				SAND: medium-coarse grained, red-brown grading to dark brown Silty LOAM, stiff, dry, no odor SAND, fine-medium grained, slight silt, medium brown, dry, no odor		ND	5-6' bg
8	2" / 8 ' 12'			No recovery except a single brick.		ND	7-8' bg
10							
12	48" / 12 - 16'			SAND: fine-coarse grained, stratified, grayish brown, saturated, no odor		ND	12-13' bg
14							
16				End of Exploration = 16 feet		ND	15-16' bg
18							
20				Monitoring Well materials are 1.0" I.D. PVC, 10' 0.001-slot screen and 6' casing, aluminum roadbox			
22							

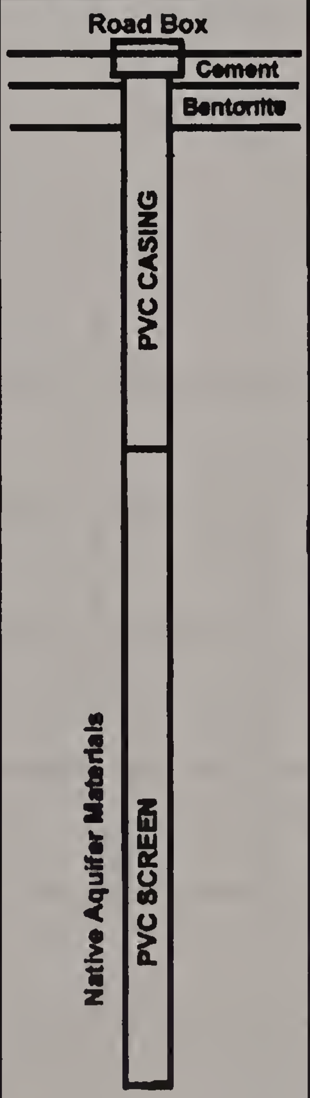
[1] Soil Strata Identification: Evaluated according to Burmister Classification System.

[2] Field Test: Photoionization Detector (PID) readings in parts per million by volume (ppmv) by Massachusetts Department of Environmental Protection (MassDEP) Jar Headspace Method, according to Bureau of Waste Site Cleanup Policies #WSC-94-400 and #WSC-402-96.

ND = Not Detected above analytical method lower detection limit (0.01 ppmv)

ACTION ENVIRONMENTAL 184 Riverview Ave. Phone: 781-893-9922 Waltham, MA 02453 Fax: 781-893-6622 *Environmental Consultants & Engineers*	PROJECT NO.: 3120 LOCATION: 515 Somerville Ave., Somerville, MA. 43.0 ' S of N fenceline immediately south of the SE corner of the remaining building	SHEET: 1 of 1 DATE: 02/18/2010 BORING NO.: AE-107

		CASING	SAMPLER	GROUNDWATER		
BORING CO.: Bronson Drilling						
FOREMAN: Dan Bronson	TYPE	Steel Corer	4' acrylic sleeve	DATE	DEPTH (Feet)	STABIL. TIME
ACTION Geologist: Robert Houghton	SIZE I.D.	1.625"	1.625"	03/02/10	4.62	12 days
Drilling Equipment: Tractor-mounted Push Probe						

DEPTH (Feet)	SAMPLE Recovery/Depth	BLOWS Per 6"	STRATA CHANGE	SOIL/ROCK STRATIGRAPHY[1]	WELL CONSTRUCTION	FIELD TEST[2]	SAMPLE NO.
0	38" / 0 - 4'			Light Gravel cover SAND: fine-coarse grained, slight silt, some brick, concrete, and coal, dark blackish brown, slightly moist, no odor	 Road Box Cement Bentonite PVC CASING Native Aquifer Materials PVC SCREEN		
2						ND	1-2' bg
4	43" / 4 - 8'			LOAM: silty, dark blackish brown, slightly moist, no odor		ND	3-4' bg
6				SAND: medium-coarse grained, light brown, dry, no odor		ND	4-5' bg
8	40" / 8 ' 12'			SAND: fine-medium grained, finely laminated, light gray, no odor SAND: fine-medium grained, finely laminated, moist, saturated below 9.0 feet, light gray, no odor		ND	7-8' bg
10						ND	9-10' bg
12	48" / 12 - 16'					ND	12-13' bg
14							
16				End of Exploration = 16 feet		ND	15-16' bg
18							
20				Monitoring Well materials are 1.0" I.D. PVC, 10' 0.001-slot screen and 6' casing, aluminum roadbox			
22							

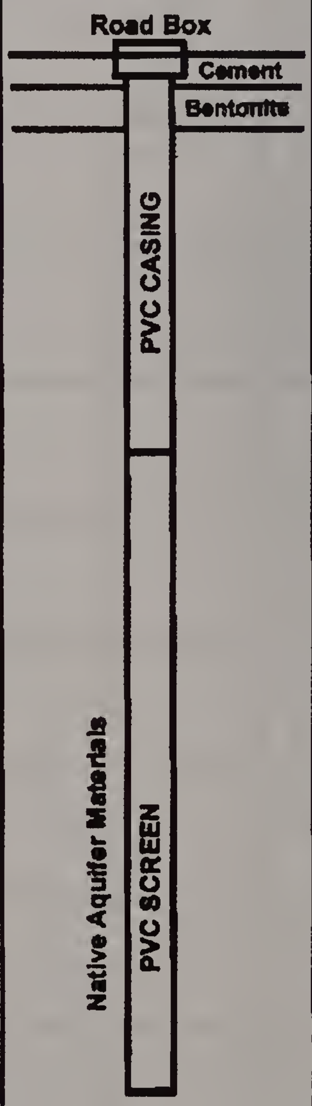
[1] Soil Strata Identification: Evaluated according to Burmister Classification System.

[2] Field Test: Photoionization Detector (PID) readings in parts per million by volume (ppmv) by Massachusetts Department of Environmental Protection (MassDEP) Jar Headspace Method, according to Bureau of Waste Site Cleanup Policies #WSC-94-400 and #WSC-402-96.

ND = Not Detected above analytical method lower detection limit (0.01 ppmv)

ACTION ENVIRONMENTAL 184 Riverview Ave. Phone: 781-893-9922 Waltham, MA 02453 Fax: 781-893-6622 *Environmental Consultants & Engineers*	PROJECT NO.: 3120 LOCATION: 515 Somerville Ave., Somerville, MA. 66.7 ' N of S fenceline and 45.3' E of AE-103	SHEET: 1 of 1 DATE: 02/18/2010 BORING NO.: AE-108

		CASING	SAMPLER	GROUNDWATER		
BORING CO.: Bronson Drilling						
FOREMAN: Dan Bronson	TYPE	Steel Corer	4' acrylic sleeve	DATE	DEPTH (Feet)	STABIL. TIME
ACTION Geologist: Robert Houghton	SIZE I.D.	1.625"	1.625"	03/02/10	8.51	12 days
Drilling Equipment: Tractor-mounted Push Probe						

DEPTH (Feet)	SAMPLE Recovery/Depth	BLOWS Per 6"	STRATA CHANGE	SOIL/ROCK STRATIGRAPHY[1]	WELL CONSTRUCTION	FIELD TEST[2]	SAMPLE NO.
0	36" / 0 - 4'			Light Gravel cover SAND: fine-coarse grained with shaley gravel, slight coal, some brick, medium to light brown, slightly moist, no odor	 Road Box Cement Bentonite PVC CASING Native Aquifer Materials PVC SCREEN		
2						ND	1-2' bg
4	37" / 4 - 8'			SAND: fine-medium grained, light brown, dry, no odor		ND	3-4' bg
6				LOAM, silty: dark brown, slightly moist, no odor SAND: fine-coarse grained, medium brown, slightly moist, wet at 8', no odor		ND ND	5-6' bg 6-7' bg
8	48" / 8 ' 12'					ND	8-9' bg
10				SAND: fine-coarse grained, medium grayish brown, stratified, wet to saturated, no odor			
12	48" / 12 - 16'					ND	11-12' bg
14							
16				End of Exploration = 16 feet		ND	15-16' bg
18							
20				Monitoring Well materials are 1.0" I.D. PVC, 10' 0.001-slot screen and 6' casing, aluminum roadbox			
22							

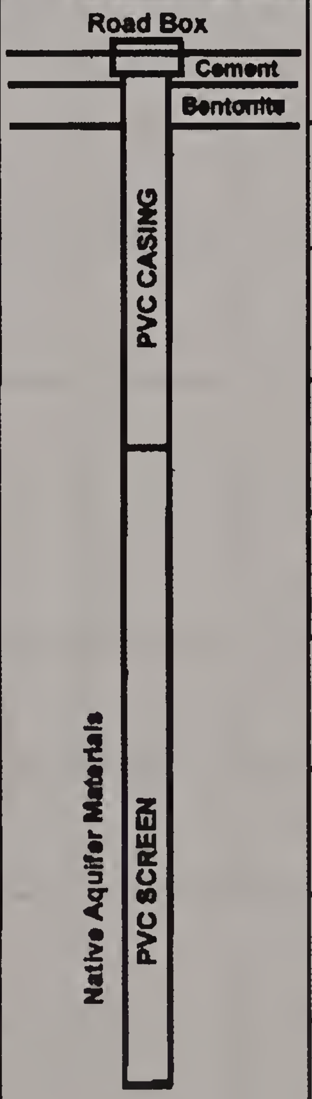
[1] Soil Strata Identification: Evaluated according to Burmister Classification System.

[2] Field Test: Photoionization Detector (PID) readings in parts per million by volume (ppmv) by Massachusetts Department of Environmental Protection (MassDEP) Jar Headspace Method, according to Bureau of Waste Site Cleanup Policies #WSC-94-400 and #WSC-402-96.

ND = Not Detected above analytical method lower detection limit (0.01 ppmv)

ACTION ENVIRONMENTAL 184 Riverview Ave. Phone: 781-893-9922 Waltham, MA 02453 Fax: 781-893-6622 *Environmental Consultants & Engineers*	PROJECT NO.: 3120 LOCATION: 515 Somerville Ave., Somerville, MA. 3.4' E of W fenceline (wood picket) and 35.3' S of N fenceline (wood picket)	SHEET: 1 of 1 DATE: 02/18/2010 BORING NO.: AE-109

BORING CO.: Bronson Drilling		CASING	SAMPLER	GROUNDWATER		
FOREMAN: Dan Bronson	TYPE	Steel Corer	4' acrylic sleeve	DATE	DEPTH (Feet)	STABIL. TIME
ACTION Geologist: Robert Houghton	SIZE I.D.	1.625"	1.625"	03/02/10	5.90	12 days
Drilling Equipment: Tractor-mounted Push Probe						

DEPTH (Feet)	SAMPLE Recovery/Depth	BLOWS Per 6"	STRATA CHANGE	SOIL/ROCK STRATIGRAPHY[1]	WELL CONSTRUCTION	FIELD TEST[2]	SAMPLE NO.
0	37" / 0 - 4'			Light Gravel cover SAND: fine-coarse grained, some silt, slight gravel, some coal and ash, dark brown, slightly moist, no odor	 Road Box Cement Bentonite PVC CASING Native Aquifer Materials PVC SCREEN		
2				SAND: medium-coarse grained, orange-brown, some mottling, dry, no odor		ND	1-2' bg
4	44" / 4 - 8'					ND	3-4' bg
6						ND	5-6' bg
8	48" / 8 ' 12'			SAND: fine-medium grained, moist, laminated, light brown, no odor		ND	7-8' bg
10				SAND: fine-medium grained, some lenses of coarse sand, light gray, saturated, sweet odor similar to camphor (naphthaline)			
12	48" / 12 - 16'					226	11-12' bg
14							
16				End of Exploration = 16 feet		178	15-16' bg
18							
20				Monitoring Well materials are 1.0" I.D. PVC, 10' 0.001-slot screen and 6' casing, aluminum roadbox			
22							

[1] Soil Strata Identification: Evaluated according to Burmister Classification System.

[2] Field Test: Photoionization Detector (PID) readings in parts per million by volume (ppmv) by Massachusetts Department of Environmental Protection (MassDEP) Jar Headspace Method, according to Bureau of Waste Site Cleanup Policies #WSC-94-400 and #WSC-402-96.

ND = Not Detected above analytical method lower detection limit (0.01 ppmv)

ACTION ENVIRONMENTAL 184 Riverview Ave. Phone: 781-893-9922 Waltham, MA 02453 Fax: 781-893-6622 *Environmental Consultants & Engineers*	PROJECT NO.: 3120 LOCATION: 515 Somerville Ave., Somerville, MA. 20.0' E of W stockade fenceline and 21.0' S of N stockade fenceline	SHEET: 1 of 1 DATE: 02/18/2010 BORING NO.: AE-110

BORING CO.: Bronson Drilling		CASING	SAMPLER	GROUNDWATER	
FOREMAN: Dan Bronson	TYPE	Steel Corer	4' acrylic sleeve	DATE	DEPTH (Feet)	STABIL. TIME
ACTION Geologist: Robert Houghton	SIZE I.D.	1.625"	1.625"			
Drilling Equipment: Tractor-mounted Push Probe						

DEPTH (Feet)	SAMPLE Recovery/Depth	BLOWS Per 6"	STRATA CHANGE	SOIL/ROCK STRATIGRAPHY[1]	WELL CONSTRUCTION	FIELD TEST[2]	SAMPLE NO.
0	32" / 0 - 4'			Light Gravel cover SAND: fine-coarse grained, some gravel, medium to dark brown, slightly moist, no odor			
2						ND	1-2' bg
4	48" / 4 - 8'			SAND: medium-coarse grained, brown with some orange, slight mottling, rare gravel, dry, no odor		ND	4-5' bg
6							
8	48" / 8 ' 12'			SAND: fine-medium grained, moist, laminated, medium to light brown, no odor		ND	7-8' bg
10							
12	48" / 12 - 16'			SAND: fine-medium grained, some lenses of coarse sand, light grayish brown, saturated, no odor		ND	11-12' bg
14							
16				End of Exploration = 16 feet		ND	15-16' bg
18							
20							
22							

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[1] Soil Strata Identification: Evaluated according to Burmister Classification System.

[2] Field Test: Photoionization Detector (PID) readings in parts per million by volume (ppmv) by Massachusetts Department of Environmental Protection (MassDEP) Jar Headspace Method, according to Bureau of Waste Site Cleanup Policies #WSC-94-400 and #WSC-402-96.

ND = Not Detected above analytical method lower detection limit (0.01 ppmv)

ACTION ENVIRONMENTAL 184 Riverview Ave. Phone: 781-893-9922 Waltham, MA 02453 Fax: 781-893-6622 *Environmental Consultants & Engineers*	PROJECT NO.: 3120 LOCATION: 515 Somerville Ave., Somerville, MA. 34.2' E of corner of stockade fence, north of former mineral spirits UST	SHEET: 1 of 1 DATE: 02/18/2010 BORING NO.: AE-111

BORING CO.: Bronson Drilling		CASING	SAMPLER	GROUNDWATER		
FOREMAN: Dan Bronson	TYPE	Steel Corer	4' acrylic sleeve	DATE	DEPTH (Feet)	STABIL. TIME
ACTION Geologist: Robert Houghton	SIZE I.D.	1.625"	1.625"			
Drilling Equipment: Tractor-mounted Push Probe						

DEPTH (Feet)	SAMPLE Recovery/Depth	BLOWS Per 6"	STRATA CHANGE	SOIL/ROCK STRATIGRAPHY[1]	WELL CONSTRUCTION	FIELD TEST[2]	SAMPLE NO.
0	36" / 0 - 4'			Light Gravel cover SAND: fine-coarse grained, some gravel, medium to dark brown, slightly moist, no odor			
2						ND	1-2' bg
4	48" / 4 - 8'					ND	4-6' bg
6							
8	48" / 8 ' 12'			SAND: fine-medium grained, moist, laminated, medium to light brown, no odor		ND	7-8' bg
10							
12	48" / 12 - 16'			SAND: fine-medium grained, some lenses of coarse sand, light grayish brown, saturated, no odor		ND	11-12' bg
14							
16				End of Exploration = 16 feet		ND	15-16' bg
18							
20							
22							

[1] Soil Strata Identification: Evaluated according to Burmister Classification System.

[2] Field Test: Photoionization Detector (PID) readings in parts per million by volume (ppmv) by Massachusetts Department of Environmental Protection (MassDEP) Jar Headspace Method, according to Bureau of Waste Site Cleanup Policies #WSC-94-400 and #WSC-402-96.

ND = Not Detected above analytical method lower detection limit (0.01 ppmv)

ACTION ENVIRONMENTAL

184 Riverview Ave. Phone: 781-893-9922
Waltham, MA 02453 Fax: 781-893-6622
Environmental Consultants & Engineers

PROJECT NO.: 3120
LOCATION: 515Somerville Ave.
Somerville, MA
Test Pit to evaluate magnetic anomaly 36' east of West Fence, 76' North of South Fence

SHEET 1 of 1
DATE 3-24-10
BORING NO.:
Test Pit-1

		CASING	SAMPLER	GROUNDWATER		
Pit Location: 36 feet east of fence post at west entrance to Property	TYPE	Steel Corer	2 ft plastic sleeve	DATE	DEPTH (Feet)	STABIL. TIME
Scientist: Raymond Harpin	SIZE I.D.			3-24-10	0.5	15 min.
Equipment: Metal Detector, Shovel, and Slam bar	WEIGHT/FALL					

DEPTH (Feet)	SAMPLE Recovery/Depth	BLOWS Per 6"	STRATA CHANGE	SOIL/ROCK STRATIGRAPHY[1]	COMMENTS	FIELD TEST[2]	SAMPLE NO.
0				Brown, F- C Sand, cobble-size pieces of concrete and asphalt			
1			10"	Approx 2'X2' Steel Drain Grate with 2" openings, approx 2 " thick (source of magnetic anomaly)	Water cam up into test pit from Drain Grate when Grate was exposed. Water level settled at approx. 5 " below surface grade. Below Grate, encountered approximately three feet of water above sand. Bottom of Drain not encountered to maximum slam bar probe depth of 3.5 feet below top of Drain Grate.		
2				Below Grate, no resistance to Slam Bar, probable open space in Drain Box			
3							
4			4'				
5				Probable Sand End of Exploration = 4 Feet			
6							
7							
8							
9							
10							
11							

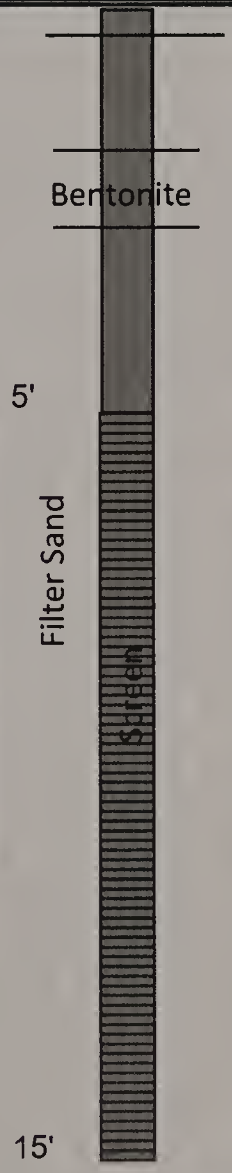
---

[1] Soil Strata Identification: Evaluated according to Burmister Classification System.

Environmental Consultants & Engineers 184 Riverview Ave. Phone: 781-893-9922 Waltham, MA 02453 Fax: 781-893-6622	Project # 3120 Location 515 Somerville Ave Somerville, MA	Action Environmental Sheet ____ of Date 1/19/2011 Boring # AE-111A

Boring Co.:	Bronson Drilling			
Foreman:	Dan Bronson		Casing	Sampler
AEI Rep.	Holly Santangelo	Type	Steel Corer	4' Acrylic Sleeve
Drilling Equipment	Track-mount push probe	Size ID	1.625"	1.525"

Groundwater	
Date	
Depth (ft)	
Stability Time	

DEPTH (ft)	Sample Recovery depth	Blows per 6"	Strata Change	Soil/Rock Stratigraphy[1]	Well Construction	Field Test[2]	Sample No.
0				SAND: fine-medium grained, brown, damp, loose, no odor			
1							
2							
3	34" / 0 - 5'					ND	0 - 5'
4							
5				3" broken concrete SAND: fine to medium, increasing grain size, brown, loose, moist, no odor			
6							
7	36" / 5 - 10'					ND	5 - 10'
8				SAND: fine, tan, increasing firmness, wet, no odor			
9							
10							
11							
12	48" / 10 - 15'			CLAY: some sand and silt, grey, firm CLAY: some sand and silt, tan SAND: fine-med, tan, firm		ND	10 - 15'
13							
14				CLAY: some silt, grey			
15				End of Exploration = 15 feet			
				Monitoring Well Materials are 1.0" I.D. PVC, 10" 0.001-slot screen, with 5' casing, 2' riser			

[1] Soil Strata Identification: Evaluated according to Burnister Classification System

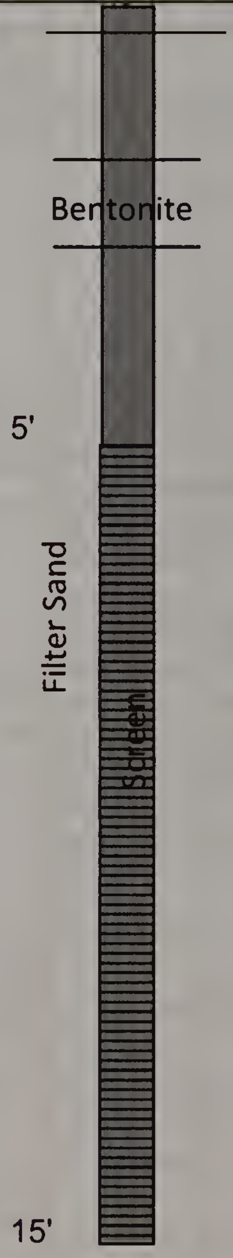
[2] Field Test: Photoionization Detector (PID) readings in parts per million by volume (ppmv) by the Massachusetts Department of Environmental Protection (MDEP) Jar Headspace Method, according to Bureau of Waste Cleanup Policies #WSC-94-400 and #WSC-402-96.

ND: Not Detected

Environmental Consultants & Engineers 184 Riverview Ave. Phone: 781-893-9922 Waltham, MA 02453 Fax: 781-893-6622	Project # 3120 Location 515 Somerville Ave Somerville, MA	Action Environmental	
		Sheet	of
		Date	1/19/2011
Boring Co.: Bronson Drilling		Boring #	AE-112

Foreman:	Dan Bronson		Casing	Sampler	Groundwater	
AEI Rep.	Holly Santangelo	Type	Steel Corer	4' Acrylic Sleeve	Date	
Drilling Equipment	Track-mount push probe	Size ID	1.625"	1.525"	Depth (ft)	
					Stability Time	

DEPTH (ft)	Sample Recovery depth	Blows per 6"	Strata Change	Soil/Rock Stratigraphy[1]	Well Construction	Field Test[2]	Sample No.
0				SAND:medium, tan,small gravel, charcoal, loose, no odor			
1						2	0 - 3'
2				SAND: fine-medium orange, damp, loose			
3	31" / 0 - 5'			SAND: fine-medium, some small gravel, loose, damp, no odor			
4							
5						10	5 - 6'
6							
7	44" / 5 - 10'			SAND: medium, grey black loose, moist, strong petroleum odor		1,239	6 - 7.5'
8							
9						208	8 - 10'
10				Wet			
11				SAND: fine, medium density, damp petroleum odor		1,170	10 - 12'
12	48" / 10 - 15'						
13						30	12 - 14'
14				SAND: fine grain, some silt, tan/orange, loose, wet		98	14 - 15'
15				End of Exploration = 15 feet			
				Monitoring Well Materials are 1.0" I.D. PVC, 10" 0.001-slot screen, with 5' casing, 2' riser			



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[1] Soil Strata Identification: Evaluated according to Burnister Classification System

[2] Field Test: Photoionization Detector (PID) readings in parts per million by volume (ppmv) by the Massachusetts Department of Environmental Protection (MDEP) Jar Headspace Method, according to Bureau of Waste Cleanup Policies #WSC-94-400 and #WSC-402-96.

ND: Not Detected

Environmental Consultants & Engineers
184 Riverview Ave. Phone: 781-893-9922
Waltham, MA 02453 Fax: 781-893-6622

Project # 3120
Location 515 Somerville Ave
Somerville, MA

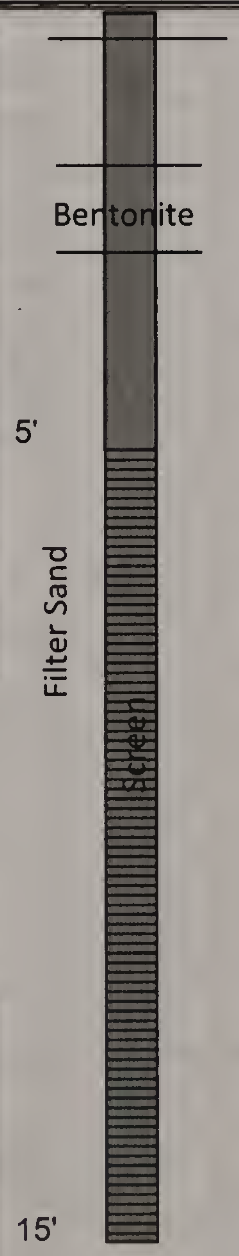
Action Environmental

Sheet		of	
Date	1/19/2011		
Boring #	AE-113		

Boring Co.:	Bronson Drilling
Foreman:	Dan Bronson
AEI Rep.	Holly Santangelo
Drilling Equipment	Track-mount push probe

	Casing	Sampler
Type	Steel Corer	4' Acrylic Sleeve
Size ID	1.625"	1.525"

Groundwater	
Date	
Depth (ft)	
Stability Time	

DEPTH (ft)	Sample Recovery depth	Blows per 6"	Strata Change	Soil/Rock Stratigraphy[1]	Well Construction	Field Test[2]	Sample No.
0				SAND:sil fine, firm, some gravel, no odor			
1						57	0 - 3'
2				2" GRAVEL: some grey sand SAND: fine-medium, brown some grey,			
3	28" / 0 - 5'			loose, damp increasing to wet at 5'			
4						387	3 - 5'
5						126	5 - 6'
6				SAND: medium to coarse, some gravel dark grey, firm, moist, petroleum odor			
7	31" / 5 - 10'			SAND: medium, dark grey, some gravel loose, moist, petroleum odor			
8						1,074	7 - 9'
9				SILT: sandy, loose, moist, petro odor			
10				SAND: medium to coarse, dark grey loose, wet, petroleum odor			
11				2" GRAVEL: some coarse sand, pet odor		96	11 - 12'
12	36" / 10 - 15'			4" SAND: fine to medium, petroleum odor 2" SAND: fine-med, tan, petro odor			
13				2" CLAY: grey, some sand, SAND: fine to coarse, dark grey,		19	12 - 13'
14				loose, petro odor SAND: fine grain, orange, loose, wet		2	14 - 15'
15				End of Exploration = 15 feet			

Monitoring Well Materials are 1.0" I.D. PVC, 10" 0.001-slot screen, with 5' casing, 2' riser

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[1] Soil Strata Identification: Evaluated according to Burnister Classification System

[2] Field Test: Photoionization Detector (PID) readings in parts per million by volume (ppmv) by the Massachusetts Department of Environmental Protection (MDEP) Jar Headspace Method, according to Bureau of Waste Cleanup Policies #WSC-94-400 and #WSC-402-96.

ND: Not Detected

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Waltham, MA 02453 Fax: 781-893-6622

Project # 3120
Location 515 Somerville Ave
Somerville, MA

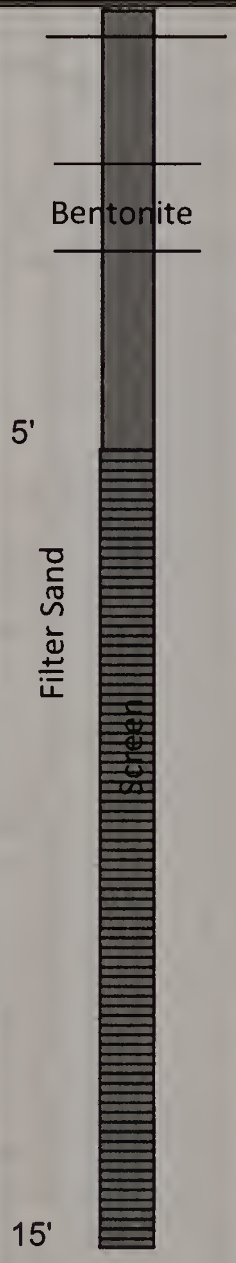
Action Environmental

Sheet	of
Date	1/19/2011
Boring #	AE-114

Boring Co.:	Bronson Drilling
Foreman:	Dan Bronson
AEI Rep.	Holly Santangelo
Drilling Equipment	Track-mount push probe

	Casing	Sampler
Type	Steel Corer	4' Acrylic Sleeve
Size ID	1.625"	1.525"

Groundwater	
Date	
Depth (ft)	
Stability Time	



DEPTH (ft)	Sample Recovery depth	Blows per 6"	Strata Change	Soil/Rock Stratigraphy[1]	Well Construction	Field Test[2]	Sample No.
0				SAND: fine to medium, brown,small			
1				gravel, frozen, no odor GRAVEL: broken rock, lt grey, dry		198	0 - 3'
2				no odor GRAVEL: fine- medium sand, dry, pink			
3	29" / 0 - 5'			SAND: fine, dark brown, moist, loose no odor			
4				1/4" SAND: medium, rust/orange SAND: fine-medium, tan, loose, moist		13	3 - 5'
5				no odor			
6							
7	39" / 5 - 10'			SAND: fine, grey, wet, loose, pet odor		83	6 - 7.5'
8				SAND: fine, tan, wet, loose		2	7.5 - 8'
9						26	8 - 10'
10							
11						43	10 - 12'
12	48" / 10 - 15'					14	12 - 13.5'
13				SAND: fine, tan/orange, firm, wet			
14				SAND: coarse, tan, loose, wet SAND: fine-med, tan, loose, wet			
15				End of Exploration = 15 feet			
				Monitoring Well Materials are 1.0" I.D. PVC, 10" 0.001-slot screen, with 5' casing, 2' riser			

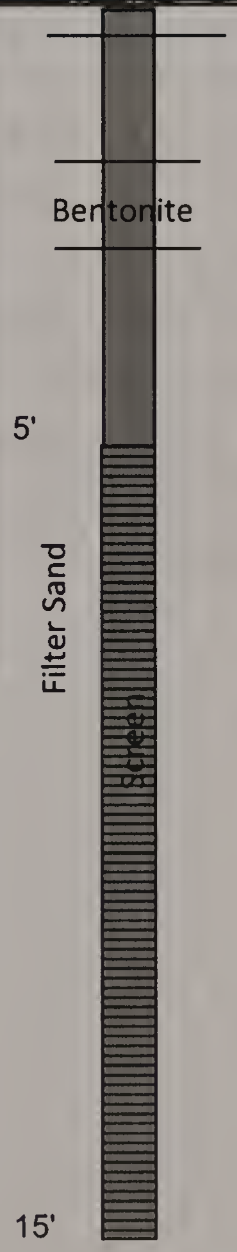
[1] Soil Strata Identification: Evaluated according to Burnister Classification System

[2] Field Test: Photoionization Detector (PID) readings in parts per million by volume (ppmv) by the Massachusetts Department of Environmental Protection (MDEP) Jar Headspace Method, according to Bureau of Waste Cleanup Policies #WSC-94-400 and #WSC-402-96.
ND: Not Detected

Environmental Consultants & Engineers 184 Riverview Ave. Phone: 781-893-9922 Waltham, MA 02453 Fax: 781-893-6622	Project # 3120 Location 515 Somerville Ave Somerville, MA	Action Environmental	
		Sheet	of
		Date	1/19/2011
Boring Co.: Bronson Drilling		Boring #	AE-115

Foreman:	Dan Bronson		Casing	Sampler	Groundwater
AEI Rep.	Holly Santangelo	Type	Steel Corer	4' Acrylic Sleeve	Date
Drilling Equipment	Track-mount push probe	Size ID	1.625"	1.525"	Depth (ft)
					Stability Time

DEPTH (ft)	Sample Recovery depth	Blows per 6"	Strata Change	Soil/Rock Stratigraphy[1]	Well Construction	Field Test[2]	Sample No.
0				SAND: fine -medium, brown,loose, damp			
1						168	0 - 3'
2				SAND: medium, orange, damp, firm			
3	24" / 0 - 3'						
4							
5				SAND: fine-medium, grey, loose, moist petroleum odor		>2,000	5 - 7'
6							
7	48" / 5 - 10'					>2,000	7 - 8'
8				4" CLAY: some silt, firm, grey, pet odor SAND: fine, some small gravel, tan, loose wet, petroleum odor			
9						80	8 - 10'
10				SAND: fine, tan, wet, loose, petroleum odor, sheen			
11				SAND: fine-medium, wet, loose petroluem odor		1,147	10 - 11'
12	48" / 10 - 15'						
13						1,936	11 - 15'
14							
15				End of Exploration = 15 feet			
				Monitoring Well Materials are 1.0" I.D. PVC, 10" 0.001-slot screen, with 5' casing, 2' riser			



[1] Soil Strata Identification: Evaluated according to Burnister Classification System

[2] Field Test: Photoionization Detector (PID) readings in parts per million by volume (ppmv) by the Massachusetts Department of Environmental Protection (MDEP) Jar Headspace Method, according to Bureau of Waste Cleanup Policies #WSC-94-400 and #WSC-402-96.

ND: Not Detected

Environmental Consultants & Engineers
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Project # 9120
Location 515 SOMERVILLE AVE SOMERVILLE

Action Environmental

Sheet 1 of 1
Date 2/10/2011
Boring # AE-218

Boring Co BRONSON DRILLING
Foreman DAN BRONSON
AEI Rep ROBERT HOUGHTON
Drilling Equipment PUSH PROBE

	Casing	Sampler
Type		
Size ID		

Groundwater
Date 2/10/2011
Depth (ft)
Stability Time

DEPTH (ft)	Sample Recovery depth	Blows per 6"	Strata Change	Soil/Rock Stratigraphy	Well Construction	Field Test	Sample No
	51/60"			SAND, LOAMY DARK BROWN, DRY	1.0" ID PVC	ND	
2			1.96'		10' 0.001-SLOT SCREEN		
4				SAND, FINE-MEDIUM SLIGHT SILT, DRY MEDIUM BROWN	5' RISER AL ROADBOX	32	
6	53/60"		5.58'	SAND FINE-MEDIUM SLIGHT SILT MEDIUM BROWN, MOIST	BENTONITE SEAL@5'	69	
8			8.00'	SAND, FINE, SLIGHT SILT MEDIUM BROWN, WET	CONCRETE SEAL@ SURFACE		
10	57/60"		10.25'	SAND, MEDIUM-COARSE SLIGHT SILT MEDIUM GRAYISH BROWN SWEET ODOR WET			
12						1060	
14							AE 218 14.5
				END OF BORING 15'			

Environmental Consultants & Engineers
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Fax 781-893-0622

Project # 3120
Location 515 SOMERVILLE AVE
SOMERVILLE, MA

Action Environmental

Sheet 1 of 1
Date 2/10/2011
Boring # AE-219

Boring Co BRONSON DRILLING
Foreman DAN BRONSON
AEI Rep ROBERT HOUGHTON
Drilling Equipment PUSH PROBE

	Casing	Sampler
Type		
Size ID		

Groundwater
Date
Depth (ft)
Stability Time

DEPTH (ft)	Sample Recovery depth	Blows per 6"	Strata Change	Soil/Rock Stratigraphy	Well Construction	Field Test	Sample No
	46/60"			SAND, FINE-MEDIUM MEDIUM BROWN, DRY	1.0" ID PVC	4	
2					10' 0.001-SLOT		
			2.5'	SAND, FINE, SLIGHT SILT, STRATIFIED GRAYISH BROWN, DRY, ORANGE MOTTLED	SCREEN		
4				SAND, MEDIUM-COARSE DARK LOAMY STRATA	5' RISER	41	
6	60/60"		6.0'	MEDIUM LIGHT BROWN, DRY	AL ROADBOX		
				SAND, MEDIUM-FINE MEDIUM BROWN, ORANGE STRIA	BENTONITE		
8			8.0'	DRY → MOIST	SEAL @ 5'		
				SAND, FINE-MEDIUM LIGHT-MEDIUM GRAY	CONCRETE		
10				WET SWEET SMELL	SEAL @ SURFACE	532	AE219 10
	60/60"						
12							
			12.4'	SAND, MEDIUM-COARSE MEDIUM BROWNISH GRAY		1130	AE 219 13-14
14			15.0'	WET			

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Waltham MA 02453 — Fax 781-893-6622

Action Environmental

Project # 3120
Location 515 SOMERVILLE AVE
SOMERVILL, MA

Sheet 1 of 1
Date 2/10/2011
Boring # AE-220

Boring Co BRONSON DRILLING
Foreman DAN BRONSON
AEI Rep ROBERT HOUGHTON
Drilling Equipment PUSH PROBE

	Casing	Sampler
Type		
Size ID		

Groundwater
Date
Depth (ft)
Stability Time:

DEPTH (ft)	Sample Recovery (in)	Blows per 6"	Strata Change	Soil/Rock Stratigraphy	Well Construction	Field Test	Sample No.
	60/60"		0.5'	SAND, LOAMY, DARK BROWN, DRY			
2			2.7'	SAND, FINE-MEDIUM LIGHT ORANGEY BROWN DRY	1.0" ID PVC 10' 0.001-SLOT SCREEN	12	
4 6	60/60"		6.6'	SAND, FINE, SLIGHT SILT LIGHT GRAYISH BROWN DRY	5' RISER AL ROADBOX BENTONITE	24	
8			7.8'	SAND, FINE, SLIGHT SILT LIGHT GRAYISH BROWN MOIST	SEAL@5'		
10			10.0'	SAND, FINE-COARSE, TRACE SILT MEDIUM BROWNISH GRAY WET, SWEET ODOR	CONCRETE	95	
12 14	60/60"		15.0'	SAND, FINE-COARSE MEDIUM GRAY WET, MODERATE ODOR	SEAL@ SURFACE	815	AE220 12-14
				END OF BORING			

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Project # 3130
Location 515' SOMERVILLE AVE
SOMERVILLE, MA

Action Environmental

Sheet 1 of 1
Date 2/10/2011
Boring # AE-221

Boring Co BRONSON DRILLING
Foreman DAN BRONSON
AEI Rep ROBERT HOUGHTON
Drilling Equipment PUSH PROBE

	Casing	Sampler
Type		
Size ID		

Groundwater

Date
Depth (ft)
Stability Time

DEPTH (ft)	Sample Recovery/depth	Blows per 6"	Strata Change	Soil/Rock Stratigraphy	Well Construction	Field Test	Sample No.
	56/60"			LOAM, SANDY, DRY DARK BROWN	1.0" ID PVC	2	AE 221 0-1
2			1.8'	SAND FINE-COARSE RARE GRAVEL LIGHT BROWN DRY	10' 0.010-SLOT SCREEN 5' RISER AL ROADBOX		
4							
6	60/60"				BENTONITE SEAL @ 5'	24	AE 221 6-7
8			7.25'	SAND, MEDIUM-COARSE LIGHT GRAYISH BROWN WET	CONCRETE SEAL @ SURFACE		
10	60/60"		10.2'	SAND, FINE-COARSE MEDIUM BROWNISH GRAY WET		14	
12			12.4'	SAND, MEDIUM-COARSE BROWNISH GRAY WET			
14						61	
			15'	END OF BORING			

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184 Riverview Ave Phone 781-893-9922
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Project # 3120
Location 515 SOMERVILLE AVE
SOMERVILLE, MA

Action Environmental
Sheet 1 of 1
Date 2/10/2011
Boring # AE-222

Boring Co BRONSON DRILLING
Foreman DAN BRONSON
AEI Rep ROBERT HOUGHTON
Drilling Equipment PUSH PROBE

	Casing	Sampler
Type		
Size ID		

Groundwater
Date
Depth (ft)
Stability Time

DEPTH (ft)	Sample Recovery depth	Blows per 6"	Strata Change	Soil/Rock Stratigraphy	Well Construction	Field Test	Sample No.
	54/60"			LOAM, SANDY, SLIGHT GRAVEL	1.0" ID PVC		
				DARK BROWN			
2				DRY	10' 0.001-SLOT		
			3.0'	SAND, MEDIUM-COARSE	SCREEN		
4				LIGHT BROWN	5" RISER	6	
			5.75'	DRY	AL ROADBOX		
6	51/60"			SAND, FINE-COARSE	BENTONITE		AE 222 6-7
				LIGHT GRAYISH BROWN	SEAL @ 5'		
8				STRATIFIED		34	
				WET BELOW 7.0'	CONCRETE		
10			9.5'	SAND, FINE-MEDIUM	SEAL @ SURFACE		
	60/60"			LIGHT BROWNISH GRAY		63	
12				WET			
				SAND, FINE, SLIGHT SILT			
14				MEDIUM LIGHT BROWNISH GRAY		14	
				WET			
			15'	END OF BORING			

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Waltham MA 02453
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Project # 3120
Location 515 SOMERVILLE AVE
SOMERVILLE, MA

Action Environmental

Sheet 1 of 1
Date 2/10/2011
Boring # AE-223

Boring Co BRONSON DRILLING
Foreman DAN BRONSON
AEI Rep ROBERT HOUGHTON
Drilling Equipment PUSH PROBE

	Casing	Sampler
Type		
Size ID		

Groundwater
Date
Depth (ft)
Stability Time

DEPTH (ft)	Sample Recovery (in)	Blows per 6"	Strata Change	Soil/Rock Stratigraphy	Well Construction	Field Test	Sample No.
	56/60"		0.3	LOAM, SANDY, SOME SILT	1.0" ID PVC		
2				DARK BROWN	10' 0.001-SLOT	ND	
			2.9'	DRY, TRACE BRICK + GRAVEL	SCREEN		
4				SAND, LOAMY	5' RISER		
				LIGHT BROWN	AL ROADBOX	5	
6	54/60"		6.0'	DRY		31	AE 223 6-7
				SAND, MEDIUM-COARSE			
			7.2'	GRAYISH BROWN, MOIST BELOW 6.2'			
8				SAND, FINE-MEDIUM			
				TRACE SILT, STRATIFIED	BENTONITE		
10				MEDIUM GRAY, SLIGHTLY	SEAL @ 5'		
	60/60"			GREENISH	CONCRETE		
				WET	SEAL @		
12					SURFACE		
						19	AE 223 13-14
14							
			15'	END OF BORING			

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Project # 3120
Location 515 SOMERVILLE AVE
SOMERVILLE, MA

Action Environmental

Sheet 1 of 1
Date 2/10/2011
Boring # AE-224

Boring Co BRONSON DRILLING
Foreman DAN BRONSON
AEI Rep ROBERT HOUGHTON
Drilling Equipment PUSH PROBE

	Casing	Sampler
Type	SS CORER	4' ACRYLIC
Size ID	1.635"	1.525"

Groundwater
Date
Depth (ft)
Stability Time

DEPTH (ft)	Sample Recovery depth	Blows per 6"	Strata Change	Soil/Rock Stratigraphy	Well Construction	Field Test	Sample No.
	52/60"			SAND, MEDIUM-COARSE			
				FILL w/ COMMON BRICK + COAL	1.0" ID PVC	ND	
2				MOIST	10' 0.001-SLOT		
			2.7'	SAND, FINE, SLIGHT SILT	SCREEN		
4				LIGHT GRAYISH BROWN	5' RISER		
				MOIST	AL ROADBOX	26	
6	60/60"		6.1'	SAND, FINE-COARSE, STRATIFIED		47	AE 224 6-7
				GRAYISH BROWN, MOIST			
8			7.4'	SAND, FINE-MEDIUM	BENTONITE		
				LIGHT GRAY	SEAL@5'		
10			10.0'	WET	CONCRETE		
	60/60"			SAND, COARSE			
			11.1'	LIGHT GRAY, WET	SEAL@		
12				SAND, FINE	SURFACE		
				LIGHT GREENISH GRAY		38	
			13.0'	WET			
14				SAND, MEDIUM-COARSE			
				LIGHT MEDIUM GRAY		34	AE 224 14
			15'	WET			
				END OF BORING			

Environmental Consultants & Engineers
184 Riverview Ave
Waltham MA 02453
Phone 781-893-9922
Fax 781-893-6622

Project # 3120
Location 315 SOMERVILLE AVE
SOMERVILLE, MA
@ SH-6

Action Environmental
Sheet 1 of 1
Date 2/10/2011
Boring # AE-225

Boring Co BRONSON DRILLING
Foreman DAN BRONSON
AEI Rep ROBERT HOUGHTON
Drilling Equipment PUSH PROBE

	Casing	Sampler
Type	SS CORER	4' ACRYLIC
Size ID	1.625"	1.525"

Groundwater
Date
Depth (ft)
Stability Time:

DEPTH (ft)	Sample Recovery (in)	Blows per 6"	Strata Change	Soil/Rock Stratigraphy	Well Construction	Field Test	Sample No.
	0/60"				1.0" ID PVC		
2					10' 0.001-SLOT SCREEN		
4					5' RISER AL ROADBOX		
6	48/60"			LOAM, DARK BROWN DRY	BENTONITE SEAL @ 5'		
8			7.3'	SAND, LOAMY, FINE GRAYISH BROWN SLIGHTLY MOIST	CONCRETE SEAL @ SURFACE	4	
10	60/60"		10.0'	SAND, FINE-MEDIUM LIGHT BROWNISH GRAY WET		8	AE 225 10-12
12							
14							
			15'	END OF BORING			

Environmental Consultants & Engineers
184 Riverview Ave — Phone 781-893-9922
Waltham MA 02453 — Fax 781-893-6622

Project # 3120
Location 515 SOMERVILLE AVE
SOMERVILLE, MA

Action Environmental

Sheet 1 of 1
Date 2/10/2011
Boring # AE-226

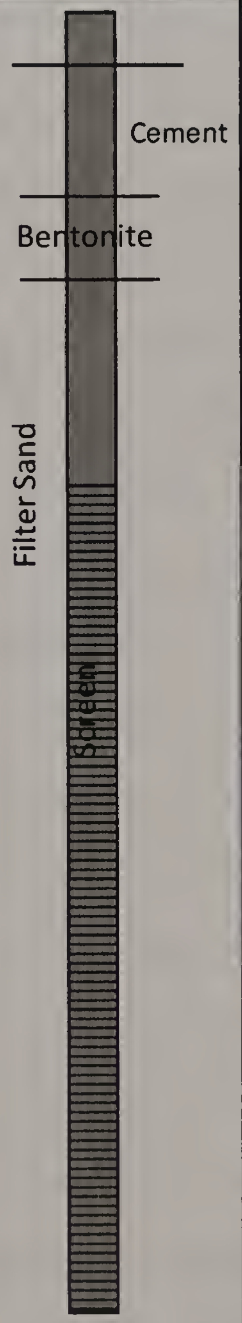
Boring Co BRONSON DRILLING
Foreman DAN BRONSON
AEI Rep ROBERT HOUGHTON
Drilling Equipment PUSH PROBE

	Casing	Sampler
Type	SS CORER	4' ACRYLIC
Size ID	1.625"	1.535"

Groundwater
Date
Depth (ft)
Stability Time

DEPTH (ft)	Sample Recovery depth	Blows per 6"	Strata Change	Soil/Rock Stratigraphy	Well Construction	Field Test	Sample No.
	51/60"			FILL, SAND. W/ COAL +	1.0" ID PVC	ND	
				CLINKER, DRY			
2				SAND, FINE-MEDIUM	10' 0.001-SLOT		
				LIGHT TAN AND ORANGE	SCREEN	59	
4				BROWN			
				DRY	5' RISER		
			57'		AL ROADBOX		
6				SILT, SLIGHT SAND		162	
			7.0'	LIGHT BROWN, MOIST	BENTONITE		
8				SAND, FINE WET	SEAL@ 5'		
			8.0'	GRAYISH BROWN			
				SAND, FINE-COARSE	CONCRETE		
				BROWNISH GRAY			
10			10.0'	WET, SWEET ODOR	SEAL @	8.37	
				SAND, FINE-MEDIUM	SURFACE		
				SLIGHT SILT			
12				SLIGHTLY GREENISH GRAY			
			13.0'	WET, MODERATE SWEET ODOR		1268	AE 226 12.5
				SAND, FINE-MEDIUM, FLOWING			
14				GRAYISH BROWN			
			15'	WET, SWEET ODOR			
				END OF BORING			

Environmental Consultants & Engineers 184 Riverview Ave. Phone: 781-893-9922 Waltham, MA 02453 Fax: 781-893-6622	Project #	3120		Action Environmental	
	Location	515 Somerville Street Somerville, MA		Sheet	1 of 3
				Date	2/11/2011
Boring Co.:	Bronson Drilling			Boring #	AE-227
Foreman:	Dan Bronson		Casing	Sampler	Groundwater
AEI Rep.	Holly Santangelo	Type	Steel Corer	4' Acrylic Sleeve	Date
Drilling Equipment	Track mount push probe	Size ID	1.625"	1.525"	Depth (ft)
					Stability Time



DEPTH (ft)	Sample Recovery depth	Blows per 6"	Strata Change	Soil/Rock Stratigraphy[1]	Well Construction	Field Test[2]	Sample No.
0				Surface 6" concrete			
1				Dark brown fine sand, loose, moist, no odor			
2				Brown fine-med sand, loose moist, no odor		0.56 - 3'	ND
3	0.5 - 5' / 39"						
4				Tan fine-med sand, loose, moist, no odor		3 - 5'	ND
5							
6						At 6'	ND
7			∇	3" brown fine sand, firm, moist Tan fine - coarse sand, wet, loose, no odor		7 - 8'	ND
8	5 - 10' / 48"						
9				- 1" orange vein, m-c sand, wet		8 - 10'	ND
10				- 1/2" orange vein, m-c sand, wet			
11						10 - 12'	ND
12				Tan fine sand, loose damp, no odor			
13	10 - 15' / 48"					12 - 14'	ND
14							
15				Tan silty sand, firm, damp, no odor 15' - End of Excavation		14.5 - 15' AE-227 14.5-15'	ND
16							

---

[1] Soil Strata Identification: Evaluated according to Burnister Classification System

[2] Field Test: Photoionization Detector (PID) readings in parts per million by volume (ppmv) by the Massachusetts Department of Environmental Protection (MDEP) Jar Headspace Method, according to Bureau of Waste Cleanup Policies #WSC-94-400 and #WSC-402-96.

Environmental Consultants & Engineers
184 Riverview Ave. Phone: 781-893-9922
Waltham, MA 02453 Fax: 781-893-6622

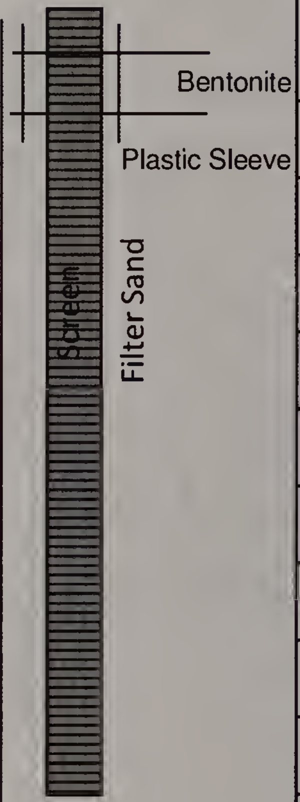
Project # 3120
Location 515 Somerville Street
Somerville, MA

Action Environmental

Sheet 2 of 3
Date 2/11/2011
Boring # AE-228

Boring Co.:	Bronson Drilling			
Foreman:	Dan Bronson		Casing	Sampler
AEI Rep.	Holly Santangelo	Type	Steel Corer	4' Acrylic Sleeve
Drilling Equipment	Track mount push probe	Size ID	1.625"	1.525"

Groundwater
Date
Depth (ft)
Stability Time



DEPTH (ft)	Sample Recovery depth	Blows per 6"	Strata Change	Soil/Rock Stratigraphy[1]	Well Construction	Field Test[2]	Sample No.
0				Surface 6" concrete			
1				Tan f-m sand, some s-m gravel, loose, damp, no odor			
2				Tan fine silty sand, some coarse sand,		2 - 3'	ND
3	0.5 - 5' / 33"			damp, dense, no odor Tan fine-med sand, damp, no odor		3 - 4'	2.7
4			∇	- 1/2" layer sm gravel, wet, no odor Tan fine sand, moist, firm, no odor		AE-228 3-5' 4 - 5'	2
5							
6	4 - 8" / 41"			Small gravel, some fine sand, wet, loose		6 - 7'	ND
7				Tan med sand, wet, loose, no odor			
8				Tan fine sand, wet, dense, no odor			
9						8 - 10'	ND
10	8 - 12' / 36"			Tan fine sand, wet loose, no odor			
11				Med gravel no odor Tan fine sand, little gravel, wet dense,		11 - 12'	ND
12				Tan coarse sand and gravel, wet			
13	10 - 15' / 45"					12 - 14'	ND
14							
15				Tan fine sand, firm, moist, no odor 15' - End of Excavation		14 - 15'	ND
16							

[1] Soil Strata Identification: Evaluated according to Burnister Classification System

[2] Field Test: Photoionization Detector (PID) readings in parts per million by volume (ppmv) by the Massachusetts Department of Environmental Protection (MDEP) Jar Headspace Method, according to Bureau of Waste Cleanup Policies #WSC-94-400 and #WSC-402-96.
ND: Not Detected

Environmental Consultants & Engineers
184 Riverview Ave. Phone: 781-893-9922
Waltham, MA 02453 Fax: 781-893-6622

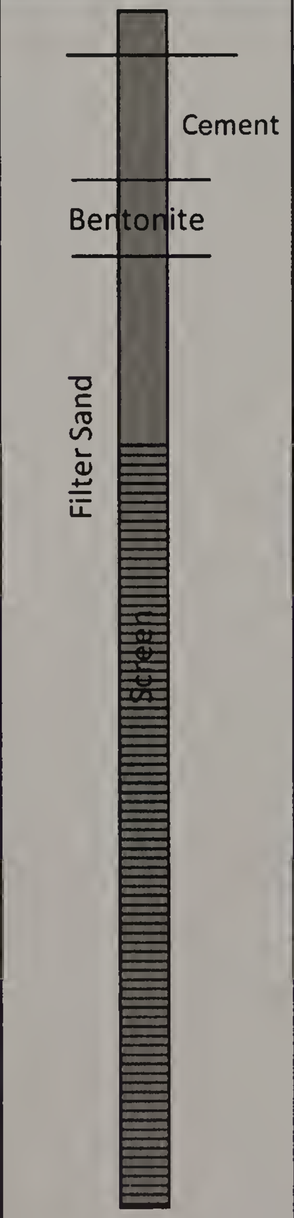
Project # 3120
Location 515 Somerville Street
Somerville, MA

Action Environmental

Sheet	3 of 3
Date	2/11/2011
Boring #	AE-229

Boring Co.:	Bronson Drilling			
Foreman:	Dan Bronson		Casing	Sampler
AEI Rep.	Holly Santangelo	Type	Steel Corer	4' Acrylic Sleeve
Drilling Equipment	Track mount push probe	Size ID	1.625"	1.525"

Groundwater	
Date	
Depth (ft)	
Stability Time	

DEPTH (ft)	Sample Recovery depth	Blows per 6"	Strata Change	Soil/Rock Stratigraphy[1]	Well Construction	Field Test[2]	Sample No.
0				Surface 6" concrete			
1				Tan fine-med sand, damp, no odor			
2				Tan/orange med sand, dense, damp		0.5 - 3'	ND
3	0.5 - 5' / 36"			Tan f-m sand, dense, damp, no odor			
4				- 1" coarse orange sand, dense, damp - 1" tan fine sand, dense, damp, no odor		3 - 5'	ND
5				- 1/2" grey silty clay, dnese, damp			
6			∇	- 1/2" grey fine sand, dense, damp Grey/tan m-c sand, wet, loose, no odor		5 - 6'	ND
7	5 - 10' / 40"					6 - 8'	ND
8				Tan fine sand, dense, wet, no odor			
9						8 - 9.5'	ND
10				Tan clayey silt, firm, damp, no odor Tan fine sand, damp, firm, no odor		9.5 - 10'	ND
11				Tan m-c sand, wet, loose, no odor Tan fine sand, wet, firm, no odor		10 - 11'	ND
12						11 - 12.5' AE-229 11-12.5'	ND
13	10 - 15' / 44"						
14				Tan/grey clay with silt and fine sand, dense, damp, no odor		14 - 15'	ND
15				15' - End of Excavation			
16							

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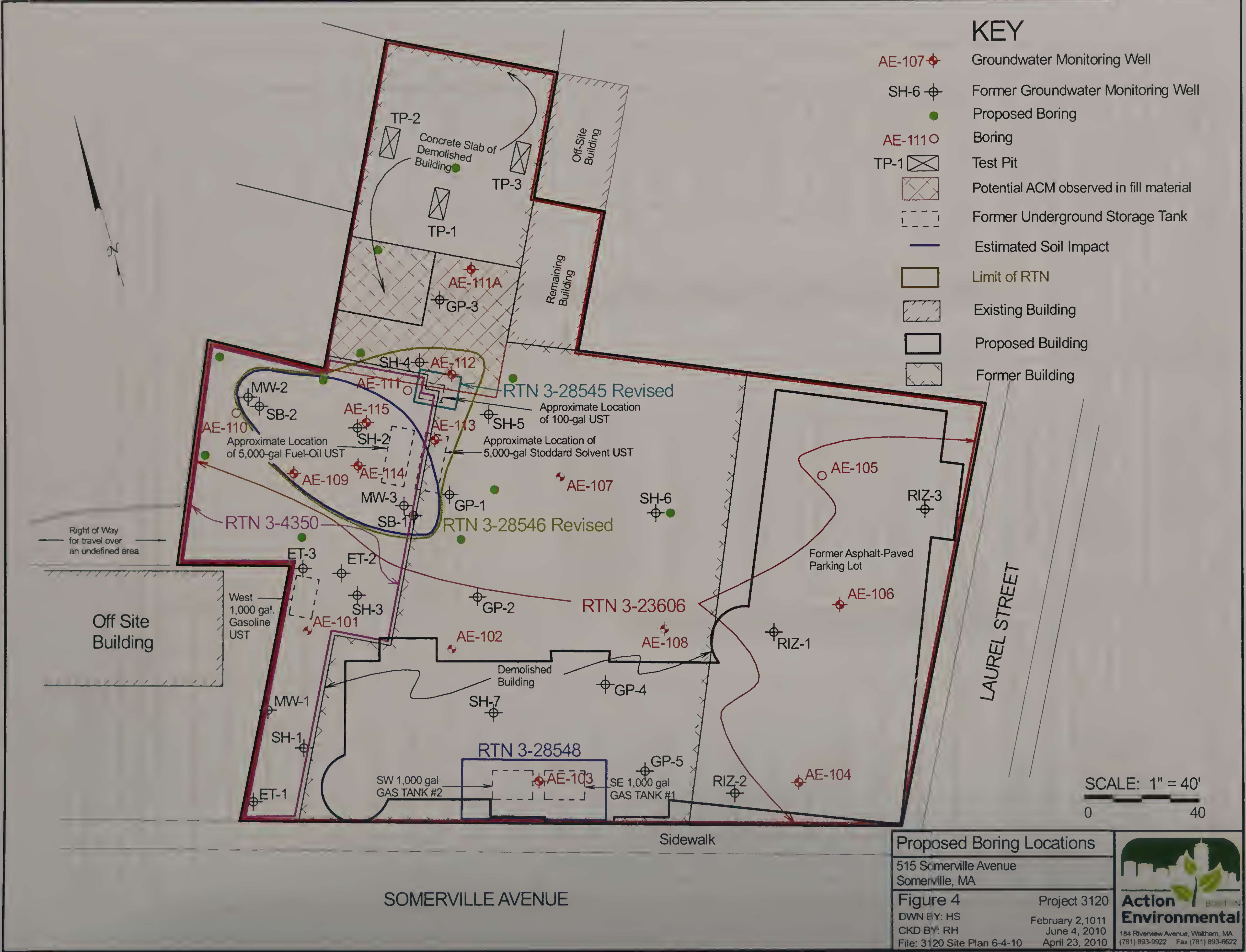
[1] Soil Strata Identification: Evaluated according to Burnister Classification System

[2] Field Test: Photoionization Detector (PID) readings in parts per million by volume (ppmv) by the Massachusetts Department of Environmental Protection (MDEP) Jar Headspace Method, according to Bureau of Waste Cleanup Policies #WSC-94-400 and #WSC-402-96.

ND: Not Detected



Proposed Boring Locations

515 Somerville Avenue
Somerville, MA

Figure 4
Project 3120
DWN BY: HS
CKD BY: RH
File: 3120 Site Plan 6-4-10
February 2,1011
June 4, 2010
April 23, 2010

Action Environmental
184 Riverview Avenue, Waltham, MA
(781) 893-9922 Fax (781) 893-6622

APPENDIX B

ASBESTOS ASSESSMENT & DISPOSAL DOCUMENTATION

June 12, 2009

Report For: World Realty & Development
Attn: Mark Coppalo
327A Watertown Street
Newton, MA 02458

Hub ID: 20252

Project: 515 Somerville Ave

Discussion: Hub Testing Laboratory was called by Alan Young of Atlantic Bay Contracting on behalf of his client, World Realty & Development, on June 9th, 2009 at 4:30 p.m. Mr. Young had indicated that the Department of Environmental Protection (DEP) had been called out to the site earlier because of suspect floor tile debris. Mr. Young had requested that Hub Testing collect samples of the suspect materials in the soil from the area that was identified by the Mr. Young as having been the area identified to him by DEP.

Hub Testing arrived on-site around 6:15 p.m on June 9th, 2009. The majority of the site was exposed soil/fill with the exception of the back of the property, which still had a partial concrete structure standing. At the time of sampling, two underground storage tanks (UST's) were in the process of being pulled. The area of concern was in between the tanks and the concrete structure.

The soil in the area of concern was dark in color and had large chunks of concrete debris as well as pieces of asphalt and red brick. Glass pieces and other forms of debris were also observed in the soil. There was also a lighter sand fill material in the right hand corner of this area.

During the course of sampling, flooring was observed in the soil/fill in an approximately 30 x 40 square foot area. Multiple pieces were located throughout this area. There were large pieces of machinery in operation and there was a large hole exposing the UST's. Samples of the flooring were collected and returned to the laboratory to be analyzed for the presence of asbestos. In addition, Mr. Young indicated that DEP identified a suspect white brick-like material in the area of concern. It was requested that this material also be sampled and returned to the laboratory to be analyzed for the presence of asbestos.

The bulk sample report and a rough sketch of the site are attached.

Lynne Whitcraft
Environmental Consultant

Susan Boyle
Vice President

HUB TESTING LABORATORIES INC.

Consulting and Testing Engineers

95 Beaver Street – Waltham, Massachusetts. 02453
(781) 893-8330 • FAX – (781) 893-4414

June 12, 2009

Report For:
World Realty & Development
Attn: Mark Coppalo
327A Watertown Street
Newton, MA 02458

Hub ID: 20252

Project: 515 Somerville Ave

Date Collected: June 9, 2009

Scope: Hub Testing Laboratory was called by Alan Young of Atlantic Bay Contracting on behalf of his client, World Realty & Development to conduct a brief inspection and collect samples of the suspect materials in the soil from the area identified by the DEP.

Findings: During the course of sampling, multiple pieces of flooring was observed in the soil of a 30 x 40 square foot area. Samples of the flooring were collected and analyzed for the presence of asbestos. In addition, a suspect white brick-like material was also identified by DEP and sampled. The results are below.

Methodology: Analysis for the presence of asbestos was performed using Polarized Light Microscopy EPA/600/R-93/116, July 1993.

Results:

Hub ID	Material/Location	Composition	%
20252-1	Green floor tile piece	*Chrysotile	4
	Color: Green	Mineral Chip	75
		Organic binder	**
20252-2	Mastic from a floor tile piece	Mineral Chip	20
	Color: Black	Organic Binder	**
20252-3	Green floor tile piece	No analyzed due to positive stop instructions	
	Color: Green		
20252-4	Mastic from a floor tile piece	Mineral Chip	20
	Color: Black	Organic Binder	**

Results:

Hub ID	Material/Location	Composition	%

20252-5	Green floor tile piece Color: Green	No analyzed due to positive stop Instructions	
20252-6	Mastic from a floor tile piece Color: Black	Mineral Chip Organic Binder	20 **
20252-7	White brick-like material Color: White	Mineral Chip	100
20252-8	White brick-like material Color: White	Mineral Chip	100
20252-9	White brick-like material Color: White	Mineral Chip	100

*Chrysotile is a common form of asbestos.

**Cannot quantify due to use of organic solvent to break down the organic binder.

Condition	The samples were received in good condition.
Comment:	Asbestos was detected in sample 20252-1. No asbestos was detected in the remaining samples analyzed. Further investigation is required to determine the extent of contamination. This analysis pertains only to the samples analyzed. This report shall not be reproduced except in full, without the written approval of the laboratory.

Susan Boyle, Vice President
MA Analytical Lab #AA000013

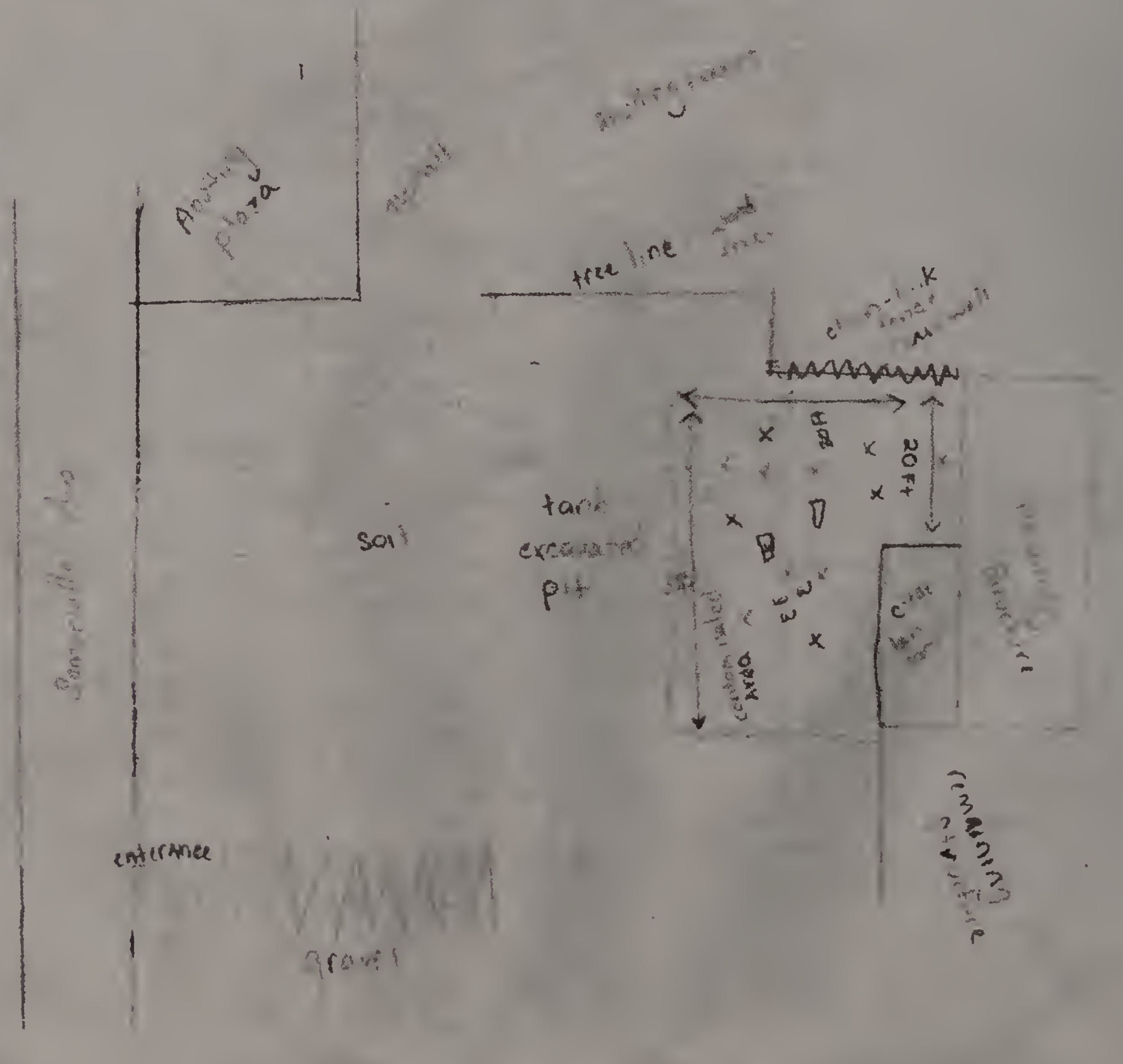
Field Sketch

HUB TESTING LABORATORIES

Consulting and Testing Engineers

95 Beaver Street — Waltham, Mass. 02154 — (617) 893-8330

Date: 6/10/09
Building No: Somerville job site By: LW
Area: 30x40



W/2/Drawing

June 22, 2009

Report For:
World Realty & Development
Attn: Mark Coppalo
327A Watertown Street
Newton, MA 02458

Hub ID: 20286

Project: 515 Somerville Ave

Discussion:

The Department of Environmental Protection (DEP) had requested a visual site inspection of the entire site. In addition, the DEP wanted hand dug test pits in order to determine the extent of the debris. Hub Testing Laboratory arrived on-site and met with Mark Coppalo of World Realty & Development and Alan Young of Atlantic Bay Contracting. An explanation was given as what the DEP was requesting. After a brief discussion both men left the site.

Hub Testing started at the area where the known previously identified ACM debris was and walked vertically to Somerville Avenue looking for any visual suspect materials. Once at the property line on Somerville Avenue, the inspector proceeded to walk back up to the area where the known ACM was. This vertical pattern continued until the entire site was covered. The inspector then proceeded to perform a horizontal inspection on the property inspecting for visual asbestos debris. This pattern was continued until the entire site was visually inspected horizontally and vertically. In addition to the already known suspect materials, two different types of suspect materials were noted and sampled. These materials, a white block and a gray fibrous material were returned to the lab and analyzed for asbestos. Both materials were not asbestos containing. Flags were placed in areas where asbestos debris was visually identified and confirmed by analysis.

After the horizontal and vertical visual inspections were performed, a sketch was completed of the site. Measurements were taken of the area where the flags were noted. The area was approximately 54'x 40'. Test pits were then performed. Each test pit was hand dug to ensure the least amount of disturbance and to prevent from further packing by heavy machinery. Eighteen test pits were dug on-site. Test pits were dug until no pieces of ACM debris was noted. In some locations this was to minus 1 inch and in other areas (where elevation changes were noted) it was to minus 3 inches. Therefore it was recommended that the soil be removed to minus 3 inches in the contaminated area.

The bulk sample report for the analysis of the new suspect materials and a sketch are attached.

Lynne Whitcraft
Environmental Consultant

Susan Boyle
Vice President

HUB TESTING LABORATORIES INC.

Consulting and Testing Engineers

95 Beaver Street – Waltham, Massachusetts. 02453
(781) 893-8330 • FAX – (781) 893-4414

June 22, 2009

Report For:
World Realty & Development
Attn: Mark Coppalo
327A Watertown Street
Newton, MA 02458

Hub ID: 20286

Project: 515 Somerville Ave

Date Collected: June 18, 2009

Scope: Hub Testing Laboratory was called by World Realty & Development to perform a complete site inspection for asbestos debris including hand dug test pits to determine horizontal and vertical contamination per order of the DEP.

Findings: During the course of the inspection, two materials were identified as suspect. A white block material and a gray fibrous debris was identified and sampled. The results are below.

Methodology: Analysis for the presence of asbestos was performed using Polarized Light Microscopy EPA/600/R-93/116, July 1993.

Results:

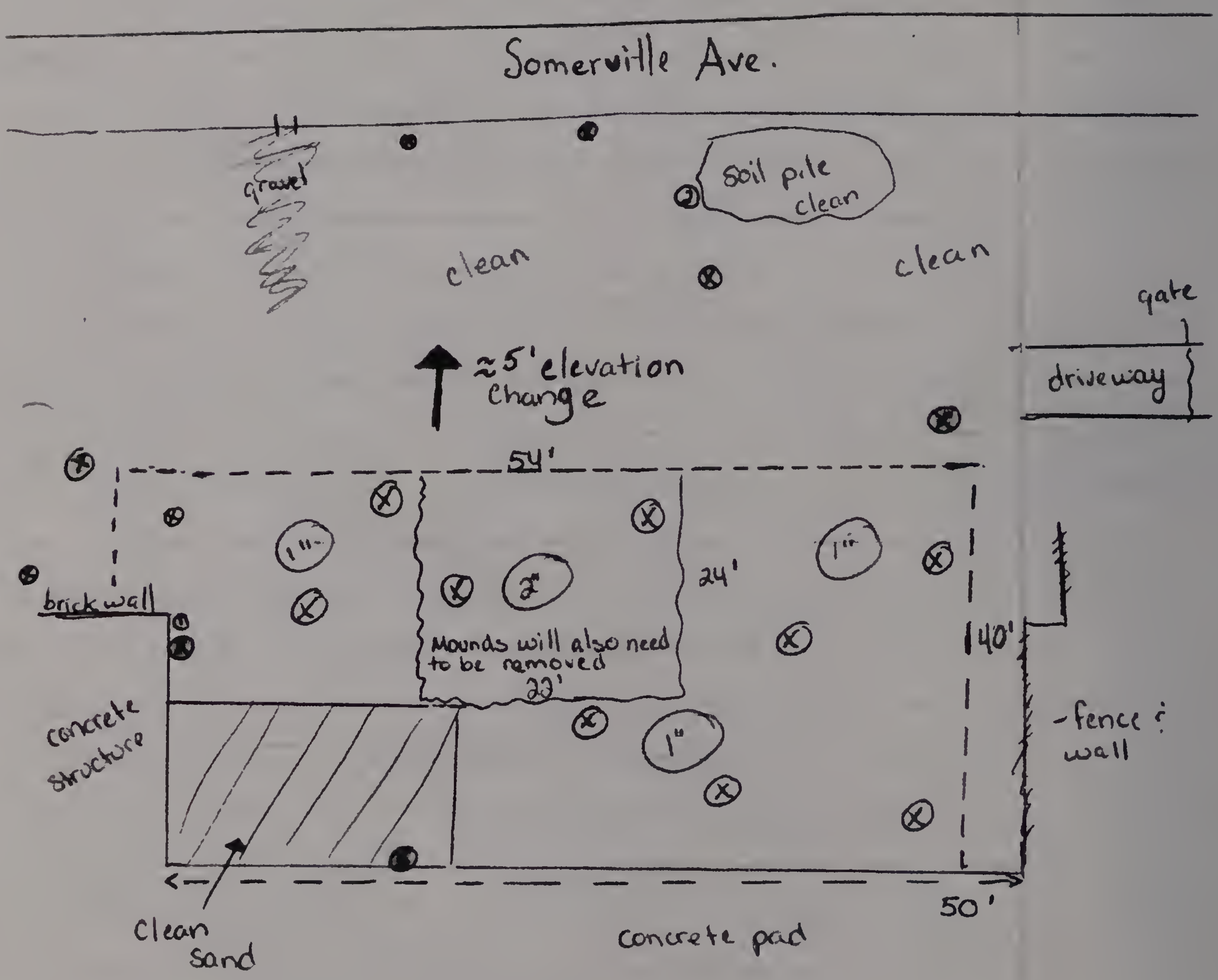
Hub ID	Material/Location	Composition	%
20286-1	White black material Color: White	Mineral Chip	100
20286-2	Gray fibrous debris Color: Gray	Cellulose	50
		Mineral Chip	50

Condition: The samples were received in good condition.

Comment: No asbestos was detected in the samples analyzed. This analysis pertains only to the samples analyzed. This report shall not be reproduced except in full, without the written approval of the laboratory.

Susan Boyle, Vice President
MA Analytical Lab #AA000013

Field Sketch



⊗ = Test pits 1st trip
● = Test pits w/ Sue
⊙ = Sample collected of suspect material

Project Site:
515 Somerville Ave
Somerville, MA

ASBESTOS ABATEMENT PLAN
REVISION #1 – 11/17/2009

1.01 GENERAL

The purpose of this project is to remove asbestos contaminated soil from the construction site at 515 Somerville Avenue, Somerville, Massachusetts.

The area affected shall be isolated, marked-off using construction barrier tape and carefully excavated. The top three inches of soil shall be removed, packaged and disposed of as asbestos waste. The area shall be re-examined by a MA licensed Project Monitor and if no pieces of suspect floor tile are found, an additional 6 inches of soil shall be removed and the removal of contamination from the affected area shall be considered complete.

If the visual inspection shows pieces of suspect floor tile, an additional three-inch layer of soil shall be removed to a point of no visible tile residue. When no visible material is found then an additional 6 inches of soil shall be removed

1.02 PREPARATION OF REMOVAL AREA

1. The area of soil removal shall be staked out with wooden stakes firmly embedded in the soil. A second set of grade stakes shall be off-set three feet from the work area as reference points. All stakes shall be firmly embedded so as to last the entire time required for removal and verification.

2. The contractor shall supply 110 volt weather tight electrical outlet with ground fault at each of the four sides of the excavation area. These locations will be used for daily monitoring during the excavation of contaminated soil.

3. In addition two (2) sources of one hundred ten volt alternating current (110v AC) shall be available for use by MassDEP personnel at the Site. These power sources shall be protected by ground fault circuit interrupters (GFCI's)

4. A closed and secured dumpster lined with polyethylene sheeting shall be established on the work site on top of a single layer of six mil poly sheeting extending out three feet from all sides of the dumpster.

5. A remote three-chamber decontamination facility with a wash facility shall be established at the edge of the contaminated work site.

6. The Massachusetts licensed asbestos removal Contractor shall manually remove, using labor, pick and shovel, double bag and dispose of all contaminated soil. The soil shall be adequately wetted with amended water prior to removal.

7. Dispose of asbestos contaminated soil in a regulated land-fill and provide documentation (Waste Shipment Record).

8. Contractor estimates approximately three to five days for project completion.

1.03 NOTIFICATIONS, PERMITS, WARNING SIGNS, LABELS & POSTERS

A. Permits: Secure all the permits required for the work, including disposal of asbestos in an approved landfill prior to the start of work.

B. Notifications:

  1. Once a waiver is granted by the Department of Environmental Protection Provide Massachusetts DEP and Department of Labor and Workforce Development with written notification in advance of the start of work.

  2. Provide written notification to city agencies such as fire, police, engineering, public health or others as required.

C. Warning Signs: Post the required signage around the workplace and at every point of potential entry from outside, showing the standard wording from OSHA 1926.58. Warning signs shall be of a bright color so they will be easily noticeable. The size of the sign and the size of the lettering shall be no less than the OSHA 1926.58 and 1910.145 requirements.

D. Labels: Provide the required OSHA, EPA and DOT labels for all plastic bags and all waste containers utilized to transport contaminated material to the landfill.

E. Disposal: All contaminated and waste materials shall be hauled by J.O.B and disposed of at: Waste Management of NH – Turnkey Landfill, 97 Rochester Neck Road, Rochester, NH 03839. Permit #DES-SW-SP-95-001.

PART 2.0 METHODOLOGY

2.01 ASBESTOS REMOVAL

A. Method of Removal – Manual Methods

  1. Post Asbestos Warning Signs in all areas of removal.

2. Construct a Three Chamber Decontamination Facility at the edge of the contaminated soil area according to this Asbestos Abatement Plan

3. Establish a wash station at the edge of the decontamination unit and contiguous to the contaminated soil area. This station will be used to wash boots, tools and equipment prior to leaving the contaminated soil area. This can be a small kiddie pool that is tight and leak proof. All contaminated water will be collected and discarded appropriately.

4. Each person passing into the soil contamination area shall don disposable suits with hoods, respirators and rubber boots. He/she shall also don additional safety equipment (goggles, hard hat, etc.) that the project safety program may require.

5. The Contractor shall remove asbestos contaminated soil completely using appropriate tools, i.e., picks, shovels, scrapers, as necessary down to a level of minus 3 inches. When no visible material is found then 6 additional inches of soil shall be removed. All asbestos contaminated soil is to be kept sufficiently wetted with amended water throughout the removal process; no dry removal is permitted.

6. Double bag material, label, pack and seal for disposal according to Asbestos Abatement plan.

7. If the I.H., after visual examination, finds no pieces of suspect floor tile and the additional soil removed, the excavation is finished. If the I.H. finds signs of suspect contamination, the excavation will carefully continue to an additional three inches of depth and will continue in three inch layers until the area is declared visually clean.

8. Each time upon leaving the contaminated work area, every personal shall pass through the wash station, scrubbing all residue from their rubber boots and tools. The boots shall be stacked and the person shall move to the wash room and remove his/her disposable suit and package it as asbestos waste. Upon completing decontamination, he/she may pass into the clean room for departure.

9. All tools, equipment, machines, etc. shall be thoroughly washed with amended water prior to being removed from the contaminated area.

10. After the removal of all soil has been completed, the work area shall be left in a workman like condition with all waste packaged, labeled and readied for proper disposal.

3.0 – MONITORING, TESTING AND INSPECTION PART

A. Performance and execution of the work shall be closely and continuously monitored by the Owner retained Industrial Hygienist/I.H. consultant and their technicians.

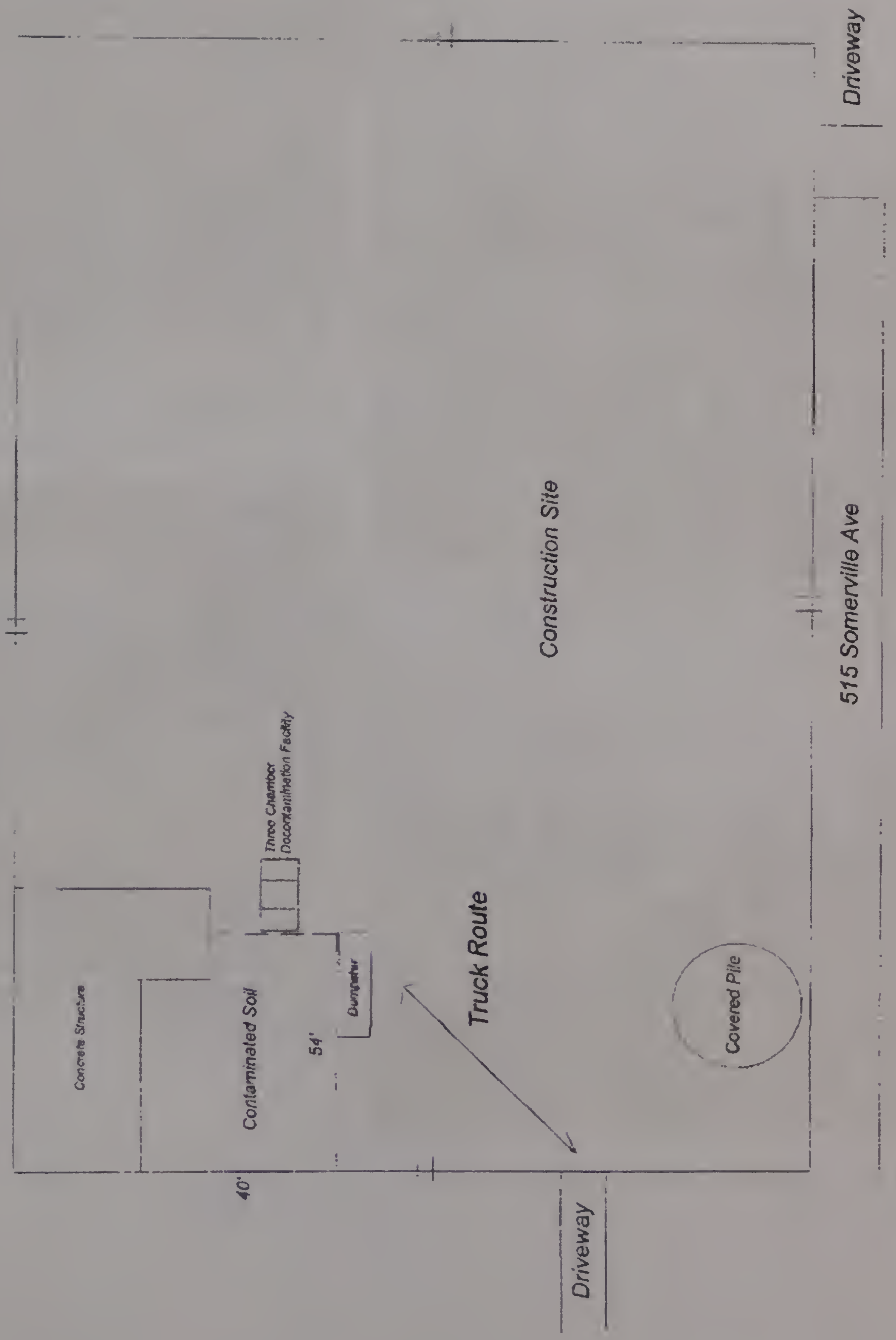
B. A field laboratory shall be established in the field with sufficient instruments and equipment to perform sample analyses. In addition a weather station shall be established to measure wind speed and direction to aid in location of monitoring points.

C. The Department of Environmental Protection will be contacted and will perform Pre and Post Site Inspections.

D. Ambient air monitoring around the circumference of the work area shall be performed on a continuous basis during the demolition operation with data read immediately and then called into the DEP office at # 978-694-3262. Attention shall be paid to the downwind sector as well as to all adjacent properties and walkway to ensure that circumferential monitoring points coincide with these sensitive receptors. The consultant may be required to use more than four (4) air monitoring stations to accomplish adequate monitoring. Analyses of the air samples shall be done on the Site so that corrections in the work practices can be made immediately. If the air monitoring results exceed the Massachusetts Division of Occupational Safety's clean air criteria of one-one hundredth fiber per cubic centimeter (0.01 f/cc) of air, then all work shall stop. The work methods shall be evaluated prior to continuing any further work and MassDEP shall be notified by telephone within 2 hours. All air monitoring shall be performed by consultants who are properly trained and licensed in the Commonwealth of Massachusetts ("Commonwealth") as Asbestos Project Monitors. All sample analyses shall be performed by consultants who are properly trained and who work for a laboratory which is licensed by the Commonwealth.

E. All perimeter air samples shall be collected in the breathing zone, which for the purpose of this Conditional Approval, is located at a minimum of forty-eight inches (48") and a maximum of seventy-two inches (72") above the ground level. Air samples collected utilizing low-flow pumps shall be collected at a flow rate of five (5.0) liters per minute ("LPM). Low flow sample results shall be calculated to reflect the eight-hour time-weighted average ("8-hour TWA"). Samples collected utilizing high flow pumps shall be collected at a flow rate between eight and twelve (8-12) LPM with a minimum volume of 1080 liters per sample. All (low and high flow) air filter cassettes shall be changed periodically to prevent particulate overloading. Each air filter cassette shall have the start and stop time and associated start and stop flow rates recorded in the consultant's Site log for review by MassDEP.

Project Site:
515 Somerville Ave
Somerville, MA



Somerville Ave
Photos

View from rear of site to Somerville Ave – floor tile observed between slab and yellow construction tape

Inside corner of slabs. Sandy fill in inner corner consistent at least 2.5 ft down, no tile observed on fill.

Far left side of site, above construction caution tape, blue flags indicate obvious pieces of green floor tile.

Blue flags mark more obvious pieces of floor tile (green tile)

Below and left side of construction caution tape – no tile observed

Right side of site, compacted from trucks, no floor tile debris observed.

4026375

UNITED WASTE
MANAGEMENT

World Realty & Development
515 Somerville Avenue
Somerville, MA 02144
Atlantic Bay Contracting
100107446

15

№ 3406

RiS Profile#
5C231

NON-HAZARDOUS WASTE
RQ, ASBESTOS, 9, NA2212, PG III

ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number: 100107446 P.O. #:	**GENERATOR/BUILDING OWNER**
Contractor: ATC Inc / World Realty	Name: World Realty Development
Address: 100 Hano St #22	Address: 515 Somerville Ave
City: Allston State: MA Zip: 2134	City: Somerville State: MA Zip: 02144
Telephone: 6177824796	Telephone: 617 969 5105
Container Del. Date: 7/14/10	**GENERATING LOCATION**
Container Pick-up Date: 7-14-10	Name:
Friable Non-Friable 25 Yds	Address:
Bag Drum Box Other	City: State: Zip:
	Telephone:

I hereby certify that the above named material does not contain free liquid as defined by CFR part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Authorized Signature:

E.P.A. AGENCY

MA, NH, RI, ME

U.S. EPA - Region 1
Air Management - JFK Building
Boston, MA 02203
(617) 565-3265

Transporter 1: United Waste Management 155 Bodwell Street • Avon, MA 02322 • (800) 631-9554

I hereby certify that the above named material was picked up at the generator site listed above, and, if applicable delivered to the temporary storage/transfer location or final landfill destination

Driver: Reg #: 81C30 Date: 7-14-10

TEMPORARY STORAGE/TRANSFER FACILITY:

Received By: Date:

I hereby certify that the above named material has been accepted at the above named facility.

Transporter 2:

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver: Reg #: Date:

Landfill Name: Waste Management of New Hampshire Telephone: (603) 330 2141

Location: Rochester, NH Permit #:

Approx. Volume of Asbestos Received Discrepancy, if any:

Received By: E Mottola 7 15 10

I hereby certify that the above named material has been accepted and to the best of my knowledge the information provided is true and accurate.

COPY 1: Original, returned to owner

781-873-6622

UNITED WASTE MANAGEMENT

Profile # 56 234 / 10

№ 3407

NON-HAZARDOUS WASTE
RQ, ABBESTOS, 9, NA2212, PG III

ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number: 1001074446 P.O. #
Contractor: Atlantic Bay Con
Address: 100 Harvard St #22
City: Allston State: MA Zip: 02134
Telephone: 617-787-4986
Container Del. Date:
Container Pick-up Date:
Friable ~~Non~~- Friable
Bag ✓ Drum Box ✓ Other

GENERATOR/BUILDING OWNER

Name: World Realty & Development
Address: 527 A Watertown St
City: Newton State: MA Zip: 02458
Telephone: 617-969-5705

GENERATING LOCATION

Name: World Realty & Dev
Address: 515 Somerville Ave
City: Somerville State: MA Zip: 02144
Telephone: 617 969-5705

I hereby certify that the above named material does not contain free liquid as defined by CFR part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Authorized Signature:

E.P.A. AGENCY

MA, NH, RI, ME

U.S. EPA - Region 1
Air Management - JFK Building
Boston, MA 02203
(617) 565-3265

Transporter 1: United Waste Management 155 Bodwell Street - Avon, MA 02322 - (800) 631-9554

I hereby certify that the above named material was picked up at the generator site listed above, and, if applicable delivered to the temporary storage/transfer location or final landfill destination.

Driver: John Powey Reg #: 21631 Date: 7-28-2010

TEMPORARY STORAGE/TRANSFER FACILITY:

Received By: Date:

I hereby certify that the above named material has been accepted at the above named facility

Transporter 2:

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver: Reg #: Date:

Landfill Name: Waste Management of New Hampshire Telephone: (603) 330 2141
Location: Rochester, NH Permit #:
Approx. Volume of Asbestos Received Discrepancy, if any:
Received By: 7 2110

I hereby certify that the above named material has been accepted and to the best of my knowledge the information provided is true and accurate.

COPY 1: Original, returned to owner

J.O.B. / ROLLOFF, INC.
Asbestos Waste Transport & Disposal
Box 6037, Chelsea, MA 02150
(617) 387-1495

E.P.A. AGENCY
CT, MA, RI, VT, NH, ME
GENERATORS

EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

99

2287

EMERGENCY RES
TELEPHON
(617) 387-14

NON-HAZARDOUS SPECIAL WASTE MANIFEST

Job Number W8S954 P.O. #
Contractor Alan Yang ABC
Address 100 Hano St
City Allston State MA Zip 22134
Telephone Number 617 755 1516
Date Container Del. Date of Pickup
Type of Container
VOLUME 40 **CY** Friable ☐ Non-Friable ☑
MUST BE IN CUBIC YARDS
Bag ☐ Drum ☐ Wrapped ☐ Other ☐
RQ, ASBESTOS, 9, NA2212, PG III

GENERATOR/BUILDING OWNER
Name World Realty & Devel. -
Address 515 Somerville Av
City Somerville State MA Zip 02
Phone Number

GENERATING LOCATION
Name
Address Same
City State Zip
Phone Number

I certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation ac NESHAP standards for asbestos waste disposal found in 40 CFR part 61.150

AUTHORIZED SIGNATURE Date: 5-11-

Transporter 1:
Name Address Telephone #
Driver: Registration #: Date:
Signature State / #
Acknowledgement of receipt of materials.

Transporter 2: J.O.B. / ROLLOFF, INC. • P.O. BOX 6037, CHELSEA, MA 02150 • (617) 387-1495
Driver: Registration #: E4537 Date: 5-11-
Signature State / #
Acknowledgement of receipt of materials

Transporter 3:
Name Address Telephone #
Driver: Registration #: Date:
Signature State / #
Acknowledgement of receipt of materials.

Landfill Name: Waste Management of NH - Turnkey Landfill
Location: 97 Rochester Neck Rd., Rochester, NH 03839
Phone No: 603-330-2165 Permit #: DES-SW-SP-95-001

OTHER
Landfill Name:
Location:
Phone No: Permit #:

Approximate Volume of Asbestos Received:
Discrepancy If Any:
Received by: Date: 5/12/09
Certification of receipt of materials covered by this manifest.

105507 NI

COPY 1 - GENERATOR

J.O.B. / ROLLOFF, INC.
Asbestos Waste Transport & Disposal
Box 6037, Chelsea, MA 02150
(617) 387-1495

E.P.A. AGENCY
CT, MA, RI, VT, NH, ME
GENERATORS

EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

99

22877

EMERGENCY RESPONSE
TELEPHONE
(617) 387-1495

NON-HAZARDOUS SPECIAL WASTE MANIFEST

Job Number 68954 P.O. #

Contractor Alan Young ABC

Address 100 Hano St

City Allston State ma Zip 22134

Telephone Number 617 785 1516

Date Container Del. Date of Pickup

Type of Container

VOLUME 40 **CY** Friable ☐ Non-Friable ☑
MUST BE IN CUBIC YARDS

Bag ☐ Drum ☐ Wrapped ☐ Other ☐

RQ, ASBESTOS, 9, NA2212, PG III

GENERATOR/BUILDING OWNER

Name World Realty & Development

Address 515 Somerville Av

City Somerville State ma Zip 02143

Phone Number

GENERATING LOCATION

Name

Address Same

City State Zip

Phone Number

I certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to NESHAP standards for asbestos waste disposal found in 40 CFR part 61.150.

AUTHORIZED SIGNATURE Date: 5-11-09

Transporter 1:
Name Address Telephone #

Driver: Registration #: Date:
Signature State / #
Acknowledgement of receipt of materials.

Transporter 2: J.O.B. / ROLLOFF, INC. • P.O. BOX 6037, CHELSEA, MA 02150 • (617) 387-1495

Driver: Registration #: 64533 mass Date: 5-11-09
Signature State / #
Acknowledgement of receipt of materials

Transporter 3:
Name Address Telephone #

Driver: Registration #: Date:
Signature State / #
Acknowledgement of receipt of materials

Landfill Name: Waste Management of NH - Turnkey Landfill
Location: 97 Rochester Neck Rd., Rochester, NH 03839
Phone No: 603-330-2165 Permit #: DES-SW-SP-95-001

OTHER
Landfill Name:
Location:
Phone No: Permit #:

Approximate Volume of Asbestos Received:

Discrepancy If Any:

Received by: Date: 5/12/09

Certification of receipt of materials covered by this manifest.

102507 NH

COPY 1 - GENERATOR

UNITEDWASTE
MANAGEMENT

World Realty & Development
515 Somerville Avenue
Somerville, MA 02144
Atlantic Bay Contracting
100107446

15

R15 Profile # 56234

NON-HAZARDOUS WASTE
RQ, ASBESTOS, 9, NA2212, PG III

№ 3406

ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number: 100107446 P.O. #:	**GENERATOR/BUILDING OWNER**
Contractor: MAC Inc / World Rlty	Name: W&D Realty Development
Address: 100 Henry St #22	Address: 515 Somerville Ave
City: Allston State: MA Zip: 02134	City: Somerville State: MA Zip: 02144
Telephone: 6177824796	Telephone: 617 969 5105
Container Del. Date: 7/14/10	**GENERATING LOCATION**
Container Pick-up Date: 7-14-10	Name:
Friable Non-Friable 25 Yds	Address:
Bag Drum Box Other	City: State: Zip:
	Telephone:

I hereby certify that the above named material does not contain free liquid as defined by CFR part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Authorized Signature:

E.P.A. AGENCY

MA. NH. RI. ME

U.S. EPA - Region 1
Air Management - JFK Building
Boston, MA 02203
(617) 565-3265

Transporter 1: United Waste Management 155 Bodwell Street - Avon, MA 02322 - (800) 631-9554

I hereby certify that the above named material was picked up at the generator site listed above, and, if applicable delivered to the temporary storage/transfer location or final landfill destination

Driver: Reg #: 41630 Date: 7-14-10

TEMPORARY STORAGE/TRANSFER FACILITY:

Received By: Date:

I hereby certify that the above named material has been accepted at the above named facility.

Transporter 2:

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver: Reg #: Date:

Landfill Name: Waste Management of New Hampshire Telephone: (603) 330 2141

Location: Rochester, NH Permit #:

Approx. Volume of Asbestos Received: Discrepancy, if any:

Received By: E Mott 7 15 10

I hereby certify that the above named material has been accepted and to the best of my knowledge the information provided is true and accurate.

COPY 1: Original, returned to owner

UNITED WASTE
MANAGEMENT

Profile #
56234 15

R15

NON-HAZARDOUS WASTE
RQ, ASBESTOS, 9, NA2212, PG III

№ 3007

ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number: 10010 7446 P.O. #:
Contractor: Atlantic Bay Contracting
Address: 100 Hano Street #22
City: Allston State: MA Zip: 02134
Telephone: 617 782 4986
Container Del. Date:
Container Pick-up Date: 7-14-10
Friable Non-Friable ✓
Bag Drum Box 25 Yd Soil

GENERATOR/BUILDING OWNER

Name: World Realty & Development
Address: 515 Somerville Ave
City: Somerville State: MA Zip: 02144
Telephone: 617 969 5705

GENERATING LOCATION

Name:
Address:
City: State: Zip:
Telephone:

I hereby certify that the above named material does not contain free liquid as defined by CFR part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Authorized Signature:

E.P.A. AGENCY

MA, NH, RI, ME

U.S. EPA - Region 1
Air Management - JFK Building
Boston, MA 02203
(617) 565-3265

Transporter 1: United Waste Management 155 Bodwell Street - Avon, MA 02322 - (800) 631-9554

I hereby certify that the above named material was picked up at the generator site listed above, and, if applicable delivered to the temporary storage/transfer location or the landfill destination.

Driver: Reg #: R1630 Date: 7-14-10

TEMPORARY STORAGE/TRANSFER FACILITY:

Received By: Date:

I hereby certify that the above named material has been accepted at the above named facility.

Transporter 2:

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver: Reg #: Date:
Landfill Name: Waste Management of New Hampshire Telephone: (603) 330 2141
Location: Rochester, NH Permit #:
Approx. Volume of Asbestos Received Discrepancy, if any:
Received By: 7 14 10

I hereby certify that the above named material has been accepted and to the best of my knowledge the information provided is true and accurate.

COPY 1: Original, returned to owner

UNITED WASTE MANAGEMENT

Profile # 56234

10

№ 3407

NON-HAZARDOUS WASTE
RQ, ASBESTOS, 9, NA2212, PG III

ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number: 100107446 P.O. #:

Contractor: Atlantic Bay Con

Address: 100 Hano St #22

City: Allston State: MA Zip: 0213

Telephone: 617-782-4906

Container Del. Date:

Container Pickup Date:

Friable [✓ Non Friable]

[✓ Bag] Drum Box Other

GENERATOR/BUILDING OWNER

Name: World Realty & Development

Address: 327A Watertown St

City: Newton State: MA Zip: 02458

Telephone: 617-969-5705

GENERATING LOCATION

Name: World Realty & Dev

Address: 515 Somerville Ave

City: Somerville State: MA Zip: 02144

Telephone: 617 969-5705

I hereby certify that the above named material does not contain free liquid as defined by CFR part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Authorized Signature:

E.P.A. AGENCY

MA, NH, RI, ME

U.S. EPA - Region 1
Air Management - JFK Building
Boston, MA 02203
(617) 565-3265

Transporter 1: United Waste Management 155 Bodwell Street - Avon, MA 02322 - (800) 631-9554

I hereby certify that the above named material was picked up at the generator site listed above, and, if applicable delivered to the temporary storage/transfer location or final landfill destination.

Driver: John Powey Reg #: 91631 Date: 7-28-2010

TEMPORARY STORAGE/TRANSFER FACILITY:

Received By: Date:

I hereby certify that the above named material has been accepted at the above named facility.

Transporter 2:

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver: Reg #: Date:

Landfill Name: Waste Management of New Hampshire Telephone: (603) 330 2141

Location: Rochester, NH Permit #:

Approx. Volume of Asbestos Received: Discrepancy, if any:

Received By: 72110

I hereby certify that the above named material has been accepted and to the best of my knowledge the information provided is true and accurate.

COPY 1: Original, returned to signer

UNITED WASTE MANAGEMENT

Profile #
56234

15

R15

№ 3416

NON-HAZARDOUS WASTE
RQ, ASBESTOS, 9, NA2212, PG III

ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number: 10010746 P.O. #:
Contractor: Atlantic Bay Contract
Address: 100 Hano St. #22
City: Allston State: Ma Zip: 02134
Telephone: 617 782 4986
Container Del. Date:
Container Pick-up Date: 7-27-10
Friable Non-Friable [✓]
Bag [✓] Drum Box Other

GENERATOR/BUILDING OWNER
Name: World Realty & Development
Address: 327A Watertown St
City: Newton State: MA Zip: 02458
Telephone: 617 969 5705

GENERATING LOCATION
Name: World Realty & Dev.
Address: 915 Somerville Ave
City: Somerville State: MA Zip: 02144
Telephone: 617 969 5705

I hereby certify that the above named material does not contain free liquid as defined by CFR part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Authorized Signature:

E.P.A. AGENCY

MA, NH, RI, ME

U.S. EPA - Region 1
Air Management - JFK Building
Boston, MA 02203
(617) 565-3265

Transporter 1: United Waste Management 155 Bodwell Street - Avon, MA 02322 - (800) 631-9554

I hereby certify that the above named material was picked up at the generator site listed above, and, if applicable delivered to the temporary storage/transfer location or final landfill destination.

Driver: Reg #: 21630 Date: 7-28-10

TEMPORARY STORAGE/TRANSFER FACILITY:

Received By: Date:

I hereby certify that the above named material has been accepted at the above named facility.

Transporter 2:

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver: Reg #: Date:

Landfill Name: Waste Management of New Hampshire Telephone: (603) 330 2141
Location: Rochester, NH Permit #:
Approx. Volume of Asbestos Received: Discrepancy, if any:
Received By: 7 28 10

I hereby certify that the above named material has been accepted and to the best of my knowledge the information provided is true and accurate.

COPY 1: Original, returned to owner

UNITED WASTE MANAGEMENT

Profile # 15
SC234

R15

NON-HAZARDOUS WASTE
RQ, ASBESTOS, 9, NA2212, PG III

№ 3008

ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number: 10010744 6 P.O. #:
Contractor: Atlantic Bay Contracting
Address: 100 Hano St. #22
City: Allston State: MA Zip: 02134
Telephone: 617 782- 4986
Container Del. Date:
Container Pick-up Date:
Friable Non- Friable
Bag Drum Box Other Soil

GENERATOR/BUILDING OWNER

Name: World Realty & Development
Address: 515 Somerville Avenue
City: Somerville State: MA Zip: 02144
Telephone: 617 969 5705

GENERATING LOCATION

Name: same
Address:
City: State: Zip:
Telephone:

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Authorized Signature:

E.P.A. AGENCY

MA, NH, RI, ME

U.S. EPA - Region 1
Air Management - JFK Building
Boston, MA 02203
(617) 565-3265

Transporter 1: United Waste Management 155 Bodwell Street • Avon, MA 02322 – (800) 631-9554

I hereby certify that the above named material was picked up at the generator site listed above, and, if applicable delivered to the temporary storage/transfer location or final landfill destination.

Driver: Reg #: 810 Date: 7-29-10

TEMPORARY STORAGE/TRANSFER FACILITY:

Received By: Date:

I hereby certify that the above named material has been accepted at the above named facility.

Transporter 2:

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver: Reg #: Date:

Landfill Name: Waste Management of New Hampshire Telephone: (603) 330 2141
Location: Rochester, NH Permit #:
Approx. Volume of Asbestos Received Discrepancy, if any.
Received by: 7 29 10

I hereby certify that the above named material has been accepted and to the best of my knowledge the information provided is true and accurate.

COPY 1: Original, returned to owner

HUB TESTING LABORATORIES INC.

Consulting and Testing Engineers

95 Beaver Street – Waltham, Massachusetts. 02453
(781) 893-8330 • FAX – (781) 893-4414

September 21, 2010

Report For:

World Realty & Development
327A Watertown Street
Newton, MA 02458

Hub ID: 21326

Project: 515 Somerville Ave

Discussion:

It was requested that soil samples be collected from the remaining contaminated soil area to be used as a guide for additional cleaning. All soil from the left side of the control area was removed from the concrete slab and trenches. This area was visually inspected and no suspect debris was noted.

The area of remaining soil contamination was divided into a grid pattern as per attached plan. Samples were collected by scooping a small amount of soil from the surface of each grid. Total size was approximately 10 grams and was comprised of multiple small sub-samples. The grid was developed as rows 1 through 4 parallel to Somerville Ave. and columns A through C perpendicular to Somerville Ave. During the visual investigation that was performed, tile was visually detected in sectors C1 and C2 (see image 1) and therefore no samples were collected from these quadrants.

Samples were hand delivered to the laboratory for analysis.

Sample results are as follows:

Results:

Hub ID	Material/Location	Asbestos by PLM/DS
21326-1	Soil sample from quadrant A1	No Visible Asbestos
21326-2	Soil sample from quadrant A2	No Visible Asbestos
21326-3	Soil sample from quadrant A3	No Visible Asbestos
21326-4	Soil sample from quadrant A4	No Visible Asbestos
21326-5	Soil sample from quadrant B1	No Visible Asbestos

Results: (cont.)

Hub ID	Material/Location	Asbestos by PLM/DS
21326-6	Soil sample from quadrant B2	No Visible Asbestos
21326-7	Soil sample from quadrant B3	Chrysotile Present
21326-8	Soil sample from quadrant B4	No Visible Asbestos
21326-9	Soil sample from quadrant C3	Chrysotile Present
21326-10	Soil sample from quadrant C4	Chrysotile Present

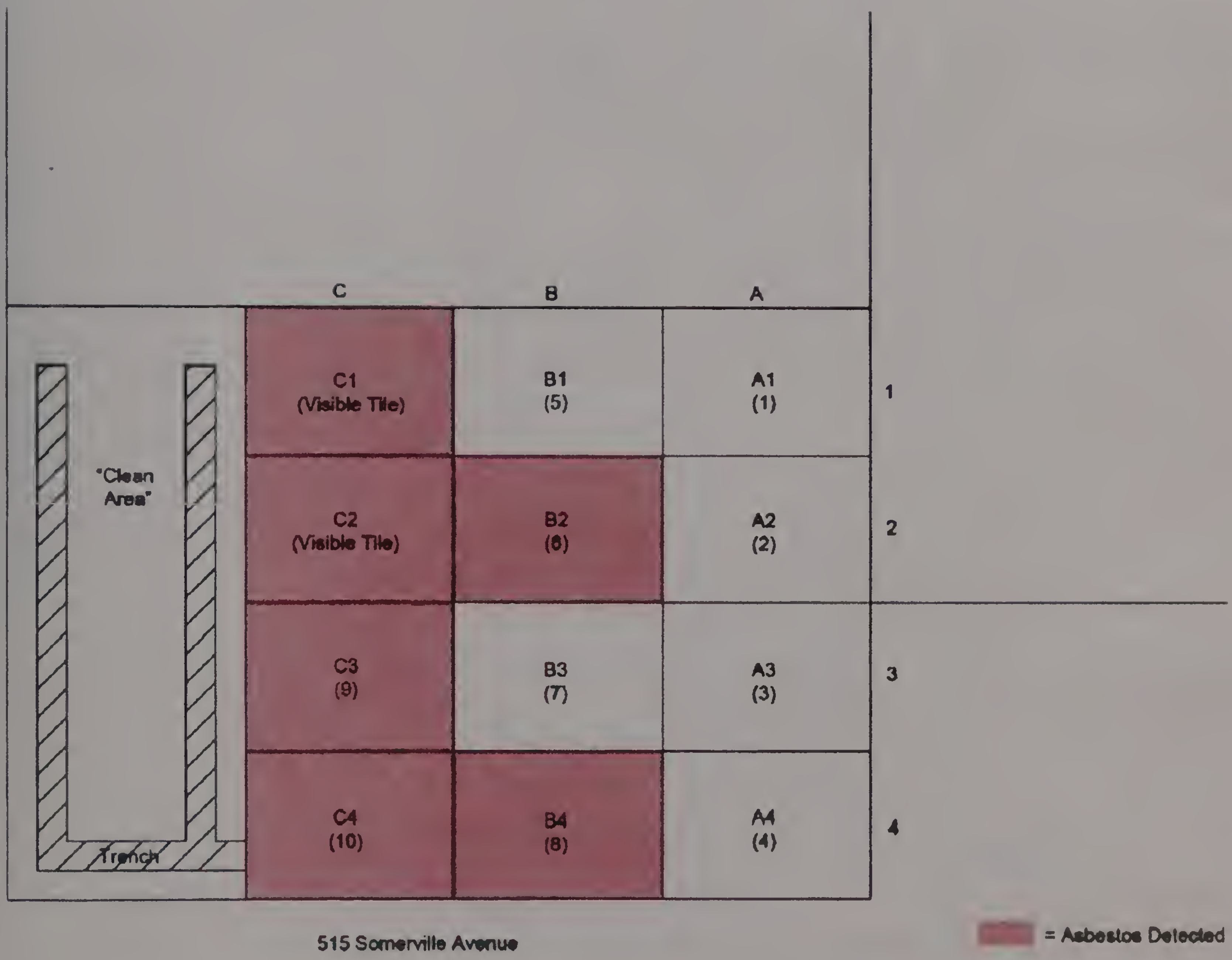
* Chrysotile is a common forms of asbsestos.

Condition: The samples were received in good condition.

Comment: Asbestos fibers were detected in 3 of the 10 samples analyzed. This analysis pertains only to the samples analyzed. This report shall not be reproduced except in full, without the written approval of the laboratory.

Susan Boyle,
Vice President

Image 1


C
B
A
"Clean Area"
Trench
C1 (Visible Tile)
B1 (5)
A1 (1)
1
C2 (Visible Tile)
B2 (6)
A2 (2)
2
C3 (9)
B3 (7)
A3 (3)
3
C4 (10)
B4 (8)
A4 (4)
4
515 Somerville Avenue
🟥 = Asbestos Detected

HUB TESTING LABORATORIES INC.

Consulting and Testing Engineers

95 Beaver Street – Waltham, Massachusetts. 02453
(781) 893-8330 • FAX – (781) 893-4414

February 03, 2011

Report For:	World Realty & Development Attn: Mark Coppalo 327A Watertown Street Newton, MA 02458
Hub ID:	21521
Project:	515 Somerville Ave

Discussion:

As per conversations with the owner, Mark Coppalo, it was decided that in order to determine the extent of asbestos contamination in the soil, borings would be taken. It is necessary to determine the extent of soil contamination for the DEP.

Borings were taken from each grid, where visible asbestos floor tile debris was found in a previous investigation.

Borings were taken using a GeoProbe, from three locations within each grid. See attached table for core locations and identification. Soil cores were returned to the laboratory for visual review. In all, 15 soil cores were taken, each representing an approximate depth of 4 feet.

Once cores were returned to the laboratory and laid out on plastic they were visually examined for obvious floor tile debris. Since the first 12 inch lift had known asbestos contamination careful attention was paid to the remaining portion of the core sample.

Floor tile debris was observed in core #21521-08 located within the second 12 inch lift of grid C3, therefore no further analysis of the cores from C3 was conducted.

Representative portions of the second 12 inch lift of cores #21521-01, #21521-02 and #21521-03 were combined from grid C1. Cores #21521-04, #21521-05 and #21521-06 were combined from grid C2. Cores #21521-10, #21521-11 and #21521-12 were combined from grid C4 and cores #21521-13, #21521-14 and #21521-15 were combined from grid B3.

Samples were hand delivered to the laboratory for analysis of asbestos using Polarized Light Microscopy.

Sample results are as follows:

Results:

Sample ID	Asbestos by PLM/DS
Soil sample from grid B-3	No Visible Asbestos
Soil Sample From Grid C-1	No Visible Asbestos
Soil Sample From Grid C-2	No Visible Asbestos
Soil Sample From Grid C-4	No Visible Asbestos

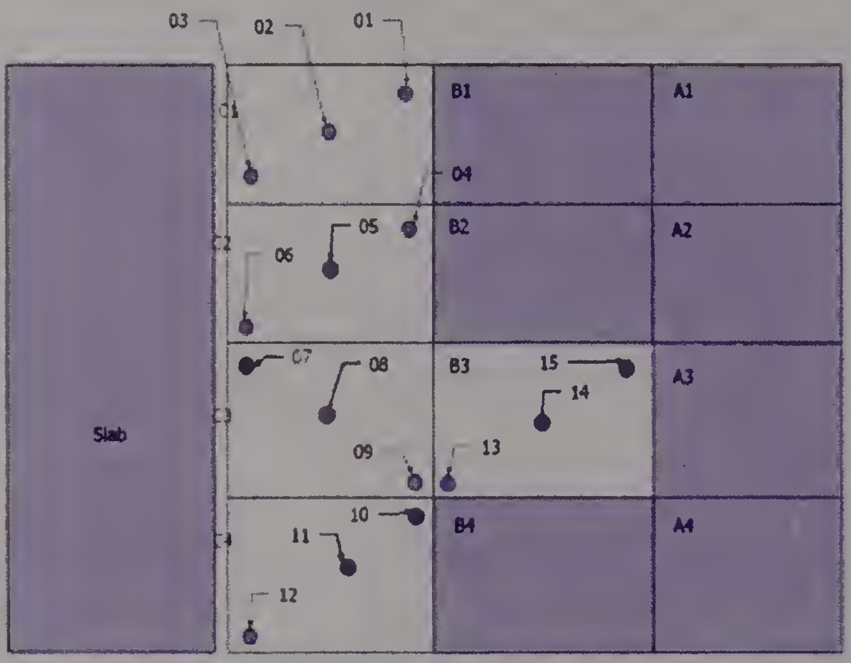
Condition The samples were received in good condition.

Comment: Asbestos was visually identified in the material representing the second 12 inch lift of grid C3. No asbestos was detected in the soil representing the second 12 inch lift from grids C1, C2, C4 and B3.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Susan Boyle,
Vice President

515 Somerville ave soil borings 1/19/11



Non shaded regions represent areas where previous asbestos contamination was either observed or detected in samples. Shaded regions represent areas where no asbestos contamination was detected in previous samples. See Report Hub ID 21326

HUB TESTING LABORATORIES INC.

Consulting and Testing Engineers

95 Beaver Street – Waltham, Massachusetts. 02453
(781) 893-8330 • FAX – (781) 893-4414

March 8, 2011

Report For:
World Realty & Development
327A Watertown Street
Newton, MA 02458

Hub ID: 21521-Grid C-3 (24-36 inches)

Project: 515 Somerville Ave

Scope: As requested further analysis of the core samples collected on January 19, 2011 were analyzed for asbestos.

Discussion: Representative portions of the third 12 inch lift (depth of 24 – 36 inches) from samples 21521-07, 08 and 09 representing Grid C3 were combined into one sample. This sample was delivered to the laboratory for analysis of asbestos using Polarized Light Microscopy.

Results:

Sample ID	Asbestos by PLM/DS
Representative sample from the third 12 inch lift (depth of 24 – 36 inches) of Grid C-3	*Chrysotile

Comment: Asbestos was identified in the material representing the third 12 inch lift (depth of 24 – 36 inches) of grid C-3.

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Susan Boyle,
Vice President

HUB TESTING LABORATORIES INC.

Consulting and Testing Engineers

95 Beaver Street – Waltham, Massachusetts. 02453
(781) 893-8330 • FAX – (781) 893-4414

March 15, 2011

Report For:
World Realty & Development
327A Watertown Street
Newton, MA 02458

Hub ID: 21521-Grid C-3 (36-48 inches)

Project: 515 Somerville Ave

Scope: As requested further analysis of the core samples collected on January 19, 2011 were analyzed for asbestos.

Discussion: Representative portions of the fourth 12 inch lift (depth of 36 – 48 inches) from samples 21521-07, 08 and 09 representing Grid C3 were combined into one sample. This sample was delivered to the laboratory for analysis of asbestos using Polarized Light Microscopy.

Results:

Sample ID	Asbestos by PLM/DS
Representative sample from the fourth 12 inch lift (depth of 36 – 48 inches) of Grid C-3	*Chrysotile

Comment: Asbestos was identified in the material representing the fourth 12 inch lift (depth of 36 – 48 inches) of grid C-3.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Susan Boyle

Susan Boyle,
Vice President

HUB TESTING LABORATORIES INC.

Consulting and Testing Engineers

95 Beaver Street – Waltham, Massachusetts. 02453
(781) 893-8330 • FAX – (781) 893-4414

April 12, 2011

Report For: World Realty & Development
327A Watertown Street
Newton, MA 02458

Hub ID: 21653

Project: 515 Somerville Ave.
Grid C-3

Methodology: The samples were delivered to the laboratory for analysis of asbestos using Polarized Light Microscopy.

Discussion: Samples were collected by Mr. Robert Houghton, LSP, Clean Properties for the client. Samples were delivered to Hub Testing Laboratory for analysis. The samples were identified by Clean Properties as having been collected from depth of 48 inches to 96 inches of grid C-3. Each sample bottle was identified with the sample depth. (see results below).

Results:

Sample ID	Location/Depth	Asbestos by PLM/DS
21653-1	Sample from depth of 48 – 54 inches from grid C-3	No asbestos detected
21653-2	Sample from depth of 54 – 60 inches from grid C-3	Not analyzed
21653-3	Sample from depth of 60 – 66 inches from grid C-3	
21635-4	Sample from depth of 66 – 72 inches from grid C-3	
21653-5	Sample from depth of 90 – 96 inches from grid C-3	

Comment: No asbestos was identified in the sample identified as 48 – 54 inch depth from grid C-3.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Susan Boyle

Susan Boyle,
Vice President

APPENDIX C

LABORATORY ANALYTICAL REPORTS

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220

MA 086 NH 198958-A NC 320 SC 88006 CT PH-0574 NY 11148

CERTIFICATE OF ANALYSIS

Client: Rizzo Associates, Inc.
Address: 235 West Central Street
Natick, MA 01760
Attn: Doug Gay
Client Designation: Proj.#2428.01

Laboratory Job Number: 9205029
Invoice Number: 032090
Date Received: 07/16/92
Date Reported: 07/30/92
Delivery Method: Alpha Courier

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
9205029.1	JSS-B1-GW103	John Solomon, Inc.
9205029.1S	JSS-B1-GW103 (Spike Recovery)	John Solomon, Inc.

RIZZO ASSOCIAT
FILE______SUB___
AUG 0 3 1992
REC'D___REF'D___ACK.___
ANS. BY______NOTED_____

Authorized by:
Scott McLean - Laboratory Director

gec

ALPHA ANALYTICAL LABORATORIES

CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A NC 320 SC 88006 CT PH-0574 NY 11148

Laboratory Sample Number: 9205029.1
Date Received: 07/16/92
Sample Matrix: Water
Date Reported: 07/30/92
Condition of Samples: Satisfactory
Field Prep: None
Number & Type of Containers: One glass bottle
Analysis Requested: Total Petroleum Hydrocarbons

PARAMETER	RESULT	UNITS	MDL**	REF*	METHOD	DATES EXT/PREP	DATES ANALYSIS
Total Petroleum Hydrocarbons	1.0	mg/L	0.5	3	5520CDF	07/17/92	07/18/92

COMMENTS: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES

CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A NC 320 SC 88006 CT PH-0574 NY 11148

Laboratory Sample Number: 9205029.2
Date Received: 07/16/92
Sample Matrix: Water
Date Reported: 07/30/92
Condition of Samples: Satisfactory
Field Prep: None
Number & Type of Containers: One glass bottle
Analysis Requested: Total Petroleum Hydrocarbons

PARAMETER	% SPIKE RECOVERY
Total Petroleum Hydrocarbons	95%

COMMENTS: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES

ACCEPTABLE MATRIX SPIKE RECOVERY LIMITS

FOR INORGANICS

PARAMETER GROUP	WATER	SOIL
Metals	75-125 %	60-140 %
Wet Chemistry	70-130 %	N/A

ALPHA ANALYTICAL LABS
ADDENDUM I
REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. 1986.

2. Standard Methods for Examination of Water and Waste Water. APHA-AWWA-WPCF. 16th Edition. 1985.

3. Standard Methods for Examination of Water and Waste Water. APHA-AWWA-WPCF. 17th Edition. 1989.

4. Methods for Chemical Analysis of Water and Wastes. EPA 600/4-82-055. 1983.

5. Oil Spill Identification System. CG-D-52-77 U. S. Coast Guard. 1977.

6. Methods for Organic Chemical Analysis of Municipal and Industrial Waste Water. EPA 600/4-82-057. 1982.

7. U. S. Department of Health & Human Services, National Institute of Occupational Safety and Health. Peter M. Eller, NIOSH Manual of Analytical Methods, Third Edition, 1984.

8. Handbook of Analytical Quality Control in Water and Wastewater Laboratories. EPA 600/4-79-019. March 1979.

9. The United States Pharmacopeia. The National Formulary. USP 20th Edition. Formulary 15th Edition. 1980.

10. Choosing Cost-Effective QA/QC (Quality Assurance/Quality Control) Programs for Chemical Analysis. PB85-241461. U. S. Department of Commerce, National Technical Information Service. August 1985.

11. Manual of Analytical Quality Control for Pesticides in Human and Environmental Media. PB 261 019. EPA 600/1-76-017. February 1975.

12. Annual Book of ASTM Standards. Sections 0, 3, 4, 5, 6, 8, 9, 11, and 14. American Society for Testing and Materials 1986.

13. 40 CFR Part 261, App. II. Method 1311 Toxicity Characteristic Leaching Procedure (TCLP). July 1, 1990 Edition.

14. Methods for the Determination of Organic Compounds in Finished Drinking Water and Raw Source Water. Available from USEPA, Cincinnati, 26 West Martin Luther King Drive, Cincinnati, Ohio, 45268.

ALPHA ANALYTICAL LABS
ADDENDUM I
REFERENCES

15. Interim Methods for the Determination of Asbestiform Minerals in Bulk Insulation Samples, Research Triangle Institute, June 1980. Asbestos Containing Materials in School Buildings: A Guidance Document, March 1979, USEPA Document C00090, parts 1 & 2.

16. Interim Methods for the Determination of Asbestos in Bulk Insulation Samples (EPA-600/M4-82-020).

17. "Prescribed Procedures for Measurement of Radioactivity in Drinking Water," Publication EPA-600/4-80-032, U. S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory, Cincinnati, August 1980.

18. "Clean Harbors Radiological Environmental Analytical Procedures," Clean Harbors Analytical Services, Braintree, MA, October 1985.

19. H. M. Prichard and T. F. Gesell, "Rapid Measurement of RN-222 Concentrations in Water with a Commercial Liquid Scintillation Counter", Health Physics, Volume 33, 1977, pp. 577-581.

20. "Handbook for Analytical Quality Control in Water and Wastewater Laboratories", March 1979, EPA 600/4-79-019.

21. Analysis of PCB's in Transformer Fluid and Waste Oil. EPA 600/4-81-045. 1981.

22. Klute, A. 1986, "Methods of Soil Analysis, Part 1", Methods 15-2.2 and 15-5.1. American Society of Agronomy, Madison, WI.

23. Exhibit No. 1. Petroleum Oils by Gas Chromatography. Alley, Young & Baumartner, Inc., Consulting Engineers, P.O. Box 2036, Brentwood, TN 37024.

24. Principal Organic Hazardous Constituents and Products of Incomplete Combustion Screening Protocol. Southern Research Institute, October 1989.

25. Official Methods of Analysis, AOAC, 14th Edition, 1984.

26. Klute, A. 1986, "Methods of Soil Analysis, Part II", Methods 37. American Society of Agronomy, Madison, WI.

CHAIN OF CUSTODY RECORD

Rizzo Associates, Inc
235 West Central Street
Natick, MA 01760
(508) 651-3401
(508) 651-1189 (FAX)

Rizzo Project Number 2428-01
Rizzo Project Name [illegible]
Samplers (signatures)
Doug Gay

Lab Alpha
Lab ID #
Send report to D. Gay
Turnaround Time Std

Rizzo Sample Number	Sample Depth	Sample Location	Sample Collected		Container			Sample Matrix	Requested Analyses
			Date	Time	#	Type	Preservative		
JSS B1 GW 103	—	—	7/15/92	6:30p	1	Amber	ice	water	TPH by IR

Relinquished by	Received by	Date	Time
Doug Gay	[illegible]	7/15/92	7:45pm
[illegible]	W. T. [illegible]	7/16/92	10:00 AM

Method of Shipment Alpha Courier

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220

MA 086 NH 198958-A NC 320 SC 88006 CT PH-0574 NY 11148

CERTIFICATE OF ANALYSIS

Client: Rizzo Associates
Address: 235 West Central Street
Natick, MA 01760
Attn: Janina Curtis
Client Designation: Proj#: 2428-02

Laboratory Job Number: 9204989
Invoice Number: 032063
Date Received: 07/15/92
Date Reported: 07/29/92
Delivery Method: Alpha Courier

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
9204989.1	JSS-B1-GW103	Somerville, MA

RIZZO ASSOCIATES, INC
FILE______SUB______
JUL 30 1992
REC'D___REF'D___ACK. BY___
ANS. BY______NOTED______

Authorized by: Scott McLean
Scott McLean - Laboratory Director
seh

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH I98958-A NC 320 SC 88006 CT PH-0574 NY 11148

Laboratory Sample Number: 9204989.1 Date Received: 07/15/92

Sample Matrix: Water Date Reported: 07/29/92

Condition of Samples: Satisfactory Field Prep: None

Number & Type of Containers: One glass bottle and two VOA vials

Analysis Requested: Analysis as listed below

PARAMETER	RESULT	UNITS	MDL**	REF*	METHOD	DATES EXT/PREP	DATES ANALYSIS
Volatile Organics ***	ND	ug/L	**	1	8260	----	07/26/92
Total Petroleum Hydrocarbons	0.9	mg/L	0.5	3	5520COF	07/15/92	07/16/92

Volatile Organics	%Surrogate Recovery
1,2-Dichloroethane-d4	98%
Toluene-d8	89%
4-Bromofluorobenzene	91%

COMMENTS: * Complete list of References found in Addendum I

** A list of volatile organics analyzed for and their detection limits accompanies this report.

*** All compounds were below the detection limits except those listed above.

ALPHA ANALYTICAL LABS
VOLATILE ORGANICS ANALYSIS by GC/MS
METHOD 8260

Alpha Job Number: 9204989 Date Reported: 07/29/92
Alpha Sample Number(s): 9204989.1
Method Detection Limit: Stated below

COMPOUNOS	
Methylene chloride	5.0 ug/L
1,1-Dichloroethane	1.5 ug/L
Chloroform	1.5 ug/L
Carbon tetrachloride	1.0 ug/L
1,2-Dichloropropane	3.5 ug/L
Dibromochloromethane	1.0 ug/L
1,1,2-Trichloroethane	1.5 ug/L
2-Chloroethylvinyl ether	10.0 ug/L
Tetrachloroethene	1.5 ug/L
Chlorobenzene	3.5 ug/L
Trichlorofluoromethane	5.0 ug/L
1,2-Dichloroethane	1.5 ug/L
1,1,1-Trichloroethane	1.0 ug/L
Bromodichloromethane	1.0 ug/L
Trans-1,3-Dichloropropene	1.5 ug/L
Cis-1,3-Dichloropropene	1.0 ug/L
Bromoform	1.0 ug/L
1,1,2,2-Tetrachloroethane	1.0 ug/L
Benzene	1.0 ug/L
Toluene	1.5 ug/L
Ethyl benzene	1.0 ug/L
Xylenes	1.0 ug/L
Chloromethane	10.0 ug/L
Bromomethane	2.0 ug/L
Vinyl chloride	3.5 ug/L
Chloroethane	2.0 ug/L
1,1-Dichloroethene	1.5 ug/L
Trans-1,2-dichloroethene	1.5 ug/L
Cis-1,2-dichloroethene	1.0 ug/L
Trichloroethene	1.0 ug/L
Dibromomethane	10.0 ug/L
1,4-Dichloro-2-butane	10.0 ug/L
Ethanol	-- ug/L
Iodomethane	-- ug/L
1,2,3-Trichloropropane	10.0 ug/L
Dichlorodifluoromethane	10.0 ug/L
Acetone	10.0 ug/L
Carbon disulfide	10.0 ug/L
2-Butanone	4.5 ug/L
Vinyl acetate	10.0 ug/L
4-Methyl-2-pentanone	10.0 ug/L
2-Hexanone	10.0 ug/L

ALPHA ANALYTICAL LABS
VOLATILE ORGANICS ANALYSIS by CC/MS
METHOD 8260

Alpha Job Number: 9204989 Date Reported: 07/29/92
Alpha Sample Number(s): 9204989.1
Method Detection Limit: Stated below

COMPOUNDS	
Styrene	1.0 ug/L
Ethyl methecrylate	-- ug/L
Acrolein	25.0 ug/L
Acrylonitrile	25.0 ug/L
Methyl tert butyl ether	10.0 ug/L
1,2-Dichlorobenzene	10.0 ug/L
1,3-Dichlorobenzene	10.0 ug/L
1,4-Dichlorobenzene	10.0 ug/L

ALPHA ANALYTICAL LABORATORIES

ACCEPTABLE SURROGATE SPIKE RECOVERY LIMITS

FRACTION	SURROGATE COMPOUND	LOW/MEDIUM WATER	LOW/MEDIUM SOIL/SEDIMENT
VOA	Toluene-d_8	88-110 %	81-117 %
VOA	4-Bromofluorobenzene	86-115 %	74-121 %
VOA	1,2-Dichloroethane-d_4	76-114 %	70-121 %
BNA	Nitrobenzene-d_5	35-114 %	23-120 %
BNA	2-Fluorobiphenyl	43-116 %	30-115 %
BNA	p-Terphenyl-d_{14}	33-141 %	18-137 %
BNA	Phenol-d_5	10-94 %	24-113 %
BNA	2-Fluorophenol	10-100 %	25-121 %
BNA	2,4,6-Tribromophenol	10-123 %	19-122 %
Pest.	Dibutylchlorendate	60-150 % *	60-150 % *

* Advisory Limit - No action required

ALPHA ANALYTICAL LABS
ADDENDUM I
REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. 1986.

2. Standard Methods for Examination of Water and Waste Water. APHA-AWWA-WPCF. 16th Edition. 1985.

3. Standard Methods for Examination of Water and Waste Water. APHA-AWWA-WPCF. 17th Edition. 1989.

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7. U. S. Department of Health & Human Services, National Institute of Occupational Safety and Health. Peter M. Eller, NIOSH Manual of Analytical Methods, Third Edition, 1984.

8. Handbook of Analytical Quality Control in Water and Wastewater Laboratories. EPA 600/4-79-019. March 1979.

9. The United States Pharmacopeia. The National Formulary. USP 20th Edition. Formulary 15th Edition. 1980.

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12. Annual Book of ASTM Standards. Sections 0, 3, 4, 5, 6, 8, 9, 11, and 14. American Society for Testing and Materials 1986.

13. 40 CFR Part 261, App. II. Method 1311 Toxicity Characteristic Leaching Procedure (TCLP). July 1, 1990 Edition.

14. Methods for the Determination of Organic Compounds in Finished Drinking Water and Raw Source Water. Available from USEPA, Cincinnati, 26 West Martin Luther King Drive, Cincinnati, Ohio, 45268.

ALPHA ANALYTICAL LABS
ADDENDUM I
REFERENCES

15. Interim Methods for the Determination of Asbestiform Minerals in Bulk Insulation Samples, Research Triangle Institute, June 1980. Asbestos Containing Materials in School Buildings: A Guidance Document, March 1979, USEPA Document C00090, parts 1 & 2.

16. Interim Methods for the Determination of Asbestos in Bulk Insulation Samples (EPA-600/M4-82-020).

17. "Prescribed Procedures for Measurement of Radioactivity in Drinking Water," Publication EPA-600/4-80-032, U. S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory, Cincinnati, August 1980.

18. "Clean Harbors Radiological Environmental Analytical Procedures," Clean Harbors Analytical Services, Braintree, MA, October 1985.

19. H. M. Prichard and T. F. Cesell, "Rapid Measurement of RN-222 Concentrations in Water with a Commercial Liquid Scintillation Counter", Health Physics, Volume 33, 1977, pp. 577-581.

20. "Handbook for Analytical Quality Control in Water and Wastewater Laboratories", March 1979, EPA 600/4-79-019.

21. Analysis of PCB's in Transformer Fluid and Waste Oil. EPA 600/4-81-045. 1981.

22. Klute, A. 1986, "Methods of Soil Analysis, Part 1", Methods 15-2.2 and 15-5.1. American Society of Agronomy, Madison, WI.

23. Exhibit No. 1. Petroleum Oils by Gas Chromatography. Alley, Young & Baumartner, Inc., Consulting Engineers, P.O. Box 2036, Brentwood, TN 37024.

24. Principal Organic Hazardous Constituents and Products of Incomplete Combustion Screening Protocol. Southern Research Institute, October 1989.

25. Official Methods of Analysis, AOAC, 14th Edition, 1984.

26. Klute, A. 1986, "Methods of Soil Analysis, Part II", Methods 37. American Society of Agronomy, Madison, WI.

CHAIN OF CUSTODY RECORD

Rizzo Associates, Inc.
235 West Central Street
Natick, MA 01760
(508) 651-3401
(508) 651-1189 (FAX)

Rizzo Project Number: 2428-02
Rizzo Project Name: John Solomon Inc - Somerville
Samplers (signatures):

Lab: Alpha
Lab ID #:
Send report to: Janina Curtis
Turnaround Time: STANDARD

Rizzo Sample Number	Sample Depth	Sample Location	Sample Collected		Container			Sample Matrix	Requested Analyses
			Date	Time	#	Type	Preservative		
JSS-B-1GW103		Somerville	7-15-92	Am	2	VOAs	HCl	water	VOCs by 8260
" "		" "	" "	" "	1	Amber	" "	" "	TPH

Relinquished by	Received by	Date	Time
	W.T. Girard	7/15/92	10 00 AM

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220

MA 086   NH 198958-A   CT PH-0574   NY 11148   NC 320   SC 88006

CERTIFICATE OF ANALYSIS

Client: Rizzo Associates
Address: 235 West Central Street
Natick, MA 01760
Attn: Janina Curtis
Client Designation: Project# 2428.01

Laboratory Job Number: 9204986
Invoice Number: 032049
Date Received: 07/15/92
Date Reported: 07/29/92
Delivery Method: Alpha Courier

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
9204986.1	JSS-B2GW-101	N/A
9204986.2	JSS-B3GW-102	N/A
9204986.3	JSS-TP2'SS101	N/A
9204986.4	JSS-TP4'SS102	N/A
9204986.5	JSS-TP7'SS103	N/A
9204986.6	Trip blank	N/A
9204986.Spike	N/A (Spike Recovery)	N/A

RIZZO ASSOCIATES, INC.
FILE ___ SUB ___
JUL 30 1992
REC'D ___ REF'D ___ ACK. BY ___
ANS BY ___ NOTED ___

Authorized by:
Scott McLean - Laboratory Director

cp

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

Laboratory Sample Number: 9204986.1 Oate Received: 07/15/92

Sample Matrix: Liquid Date Reported: 07/29/92

Condition of Samplee: Setisfectory Field Prep: None

Number & Type of Containers: Two glass bottles & two VOA vials

Analysis Requested: Analysis as listed below

PARAMETER	RESULT	UNITS	MDL	REF*	METHOD	DATES EXT/PREP	DATES ANALYSIS
Petroleum Hydrocerbon Scan ***	ND	mg/L	1.0	1	8100M	07/20/92	07/24/92
Total Hydrocarbons	NO	mg/L	0.5	3	5520-COF	07/15/92	07/16/92
Volatile Orgenics ***							
Tetrechloroethene	3.1	ug/L	**	1	8260	---	07/26/92
Ethylbenzene	2.3	ug/L	**	1	8260	---	07/26/92
Xylenes	2.7	ug/L	**	1	8260	---	07/26/92

Volatile Organics	%Surrogate Recovery
1,2-Oichloroethane-d4	99%
Toluene-d8	102%
4-Bromofluorobenzene	106%

COMMENTS: * Complete list of References found in Addendum I
** A list of volatile organics analyzed for and their detection limits accompanies this report.
*** All compounds were below the detection limits except those listed above.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

Laboratory Sample Number: 9204986.2 Date Received: 07/15/92

Sample Matrix: Liquid Oate Reported: 07/29/92

Condition of Samples: Satisfactory Field Prep: None

Number & Type of Containers: Two glass bottles & two VOA vials

Analysis Requested: Analysis as listed below

PARAMETER	RESULT	UNITS	MDL	REF*	METHOO	DATES EXT/PREP	DATES ANALYSIS
Petroleum Hydrocarbon Scan ***	ND	mg/L	1.0	1	8100M	07/20/92	07/24/92
Total Hydrocarbons	15	mg/L	0.5	3	5520-COF	07/15/92	07/16/92
Volatile Organics ***							
Tetrachloroethene	9.0	ug/L	**	1	8260	---	07/27/92
Ethylbenzene	4.8	ug/L	**	1	8260	---	07/27/92
Trichloroethene	9.5	ug/L	**	1	8260	---	07/27/92
Xylenes	4.0	ug/L	**	1	8260	---	07/27/92

Volatile Organics	%Surrogate Recovery
1,2-Oichloroethane-d4	103%
Toluene-d8	96%
4-Bromofluorobenzene	93%

COMMENTS: * Complete list of References found in Addendum I
** A list of voletile organics analyzed for and their detection limits eccompenies this report.
*** All compounds were below the detection limits except those listed above.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

Laboratory Sample Number: 9204986.3 Date Received: 07/15/92

Sample Matrix: Soil (results were reported on a dry weight basis) Date Reported: 07/29/92

Condition of Samples: Satisfactory Field Prep: None

Number & Type of Containers: Two glass jars & one VOA viel

Analysis Requested: Analysis as listed below

PARAMETER	RESULT	UNITS	MDL	REF*	METHOD	DATES EXT/PREP	DATES ANALYSIS
Polynucleer Aromatic Hydrocarbons ***							
Fluoranthene	2,220	ug/Kg	**	1	8270	07/20/92	07/27/92
Benzo(a)-anthracene	990	ug/Kg	**	1	8270	07/20/92	07/27/92
Benzo(e)pyrene	858	ug/Kg	**	1	8270	07/20/92	07/27/92
Benzo(b/k)-fluorenthene	1,540	ug/Kg	**	1	8270	07/20/92	07/27/92
Chrysene	801	ug/Kg	**	1	8270	07/20/92	07/27/92
Anthracene	365	ug/Kg	**	1	8270	07/20/92	07/27/92
Benzo(ghi)-perylene	560	ug/Kg	**	1	8270	07/20/92	07/27/92
Phenanthrene	1,530	ug/Kg	**	1	8270	07/20/92	07/27/92
Indeno(1,2,3-cd)-pyrene	570	ug/Kg	**	1	8270	07/20/92	07/27/92
Pyrene	2,250	ug/Kg	**	1	8270	07/20/92	07/27/92
Total Hydrocarbons	42	mg/Kg	40	3	5520-COF	07/16/92	07/17/92
Total Solids	93	%	0.1	3	25408	---	07/17/92

Polynuclear Aromatic Hydrocarbons	%Surrogate Recovery
Nitrobenzene-d5	90%
2-Fluorobiphenyl	95%
4-Terphenyl-d14	104%

COMMENTS: * Complete list of References found in Addendum I
** A list of voletile orgenics end polynuclear aromatic hydrocarbons analyzed for and their detection limits accompanies this report
*** All compounds were below the detection limits except those listed above.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

Laboratory Sample Number: 9204986.3 Date Received: 07/15/92

Sample Matrix: Soil (results were reported on e dry weight basis) Date Reported: 07/29/92

Condition of Samples: Satisfactory Field Prep: None

Number & Type of Containers: Two glass jars & one VOA vial

Analysis Requested: Analysis as listed below

CONTINUED

PARAMETER	RESULT	UNITS	MDL	REF*	METHOO	DATES EXT/PREP	DATES ANALYSIS
Total Metals Preperation --	--		--	1	3050	07/16/92	-------
Priority Pollutant 13 Metals							
Antimony	ND	mg/Kg	100	1	6010	---	07/22/92
Arsenic	5.2	mg/Kg	1.0	1	7060	---	07/22/92
Beryllium	NO	mg/Kg	2.0	1	6010	---	07/22/92
Cadmium	NO	mg/Kg	2.0	1	6010	---	07/22/92
Chromium	16.5	mg/Kg	4.0	1	6010	---	07/22/92
Copper	28.9	mg/Kg	4.0	1	6010	---	07/22/92
Lead	234	mg/Kg	10.0	1	6010	---	07/22/92
Mercury	ND	mg/Kg	0.25	1	7470	---	07/22/92
Nickel	14.5	mg/Kg	10.0	1	6010	---	07/22/92
Selenium	ND	mg/Kg	1.0	1	7740	---	07/22/92
Silver	NO	mg/Kg	2.0	1	6010	---	07/22/92
Thellium	NO	mg/Kg	1.0	1	7841	---	07/22/92
Zinc	93.1	mg/Kg	2.0	1	6010	---	07/22/92
Volatile Organics ***	NO	ug/Kg	**	1	8260	---	07/27/92

Volatile Organics	%Surrogate Recovery
1,2-Oichloroethane-d4	108%
Toluene-d8	99%
4-Bromofluorobenzene	81%

COMMENTS: * Complete list of References found in Addendum I
** A list of volatile orgenice end polynuclear eromatic hydrocerbons analyzed for and their detection limits accompanies this report.
*** All compounds were below the detection limits except those listed above.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

Laboratory Sample Number: 9204986.4 **Date Received:** 07/15/92

Sample Matrix: Soil (results were reported on a dry weight basis) **Date Reported:** 07/29/92

Condition of Samples: Satisfactory **Field Prep:** None

Number & Type of Containers: Two glass jars & one VOA vial

Analysis Requested: Analysis as listed below

PARAMETER	RESULT	UNITS	MDL	REF*	METHOD	DATES EXT/PREP	DATES ANALYSIS
Polynuclear Aromatic Hydrocarbons ***							
Fluoranthene	465	ug/Kg	**	1	8270	07/20/92	07/27/92
Benzo(a)-anthracene	209	ug/Kg	**	1	8270	07/20/92	07/27/92
Benzo(b/k)-fluoranthene	360	ug/Kg	**	1	8270	07/20/92	07/27/92
Chrysene	202	ug/Kg	**	1	8270	07/20/92	07/27/92
Phenanthrene	241	ug/Kg	**	1	8270	07/20/92	07/27/92
Pyrene	445	ug/Kg	**	1	8270	07/20/92	07/27/92
Total Hydrocarbons	ND	mg/Kg	40	3	5520-COF	07/16/92	07/17/92
Total Solids	97	%	0.1	3	2540B	---	07/17/92
Volatile Organics ***	ND	ug/Kg	**	1	8260	---	07/27/92

Volatile Organics	%Surrogate Recovery
1,2-Dichloroethane-d4	106%
Toluene-d8	99%
4-Bromofluorobenzene	86%

Polynuclear Aromatic Hydrocarbons	%Surrogate Recovery
Nitrobenzene-d5	87%
2-Fluorobiphenyl	88%
4-Terphenyl-d14	105%

COMMENTS: * Complete list of References found in Addendum I
** A list of volatile organics and polynuclear aromatic hydrocarbons analyzed for and their detection limits accompanies this report.
*** All compounds were below the detection limits except those listed above.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

Laboratory Sample Number: 9204986.4 **Date Received:** 07/15/92

Sample Matrix: Soil (results were reported on a dry weight basis) **Date Reported:** 07/29/92

Condition of Samples: Satisfactory **Field Prep:** None

Number & Type of Containers: Two glass jars & one VOA vial

Analysis Requested: Analysis as listed below

CONTINUED

PARAMETER	RESULT	UNITS	MDL	REF*	METHOD	DATES EXT/PREP	DATES ANALYSIS
Total Metals Preparation --	--		--	1	3050	07/16/92	-------
Priority Pollutant 13 Metals							
Antimony	ND	mg/Kg	100	1	6010	---	07/22/92
Arsenic	2.4	mg/Kg	1.0	1	7060	---	07/22/92
Beryllium	ND	mg/Kg	2.0	1	6010	---	07/22/92
Cadmium	ND	mg/Kg	2.0	1	6010	---	07/22/92
Chromium	8.0	mg/Kg	4.0	1	6010	---	07/22/92
Copper	12.0	mg/Kg	4.0	1	6010	---	07/22/92
Lead	10.0	mg/Kg	10.0	1	6010	---	07/22/92
Mercury	0.39	mg/Kg	0.25	1	7470	---	07/22/92
Nickel	ND	mg/Kg	10.0	1	6010	---	07/22/92
Selenium	ND	mg/Kg	1.0	1	7740	---	07/22/92
Silver	ND	mg/Kg	2.0	1	6010	---	07/22/92
Thallium	ND	mg/Kg	1.0	1	7841	---	07/22/92
Zinc	26.0	mg/Kg	2.0	1	6010	---	07/22/92

COMMENTS: * Complete list of References found in Addendum I
** A list of volatile organics and polynuclear aromatic hydrocarbons analyzed for and their detection limits accompanies this report.
*** All compounds were below the detection limits except those listed above.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

Laboratory Sample Number: 9204986.5 **Date Received:** 07/15/92

Sample Matrix: Soil (results were reported on a dry weight basis) **Date Reported:** 07/29/92

Condition of Samples: Satisfactory **Field Prep:** None

Number & Type of Containers: Two glass jars & one VOA vial

Analysis Requested: Analysis as listed below

PARAMETER	RESULT	UNITS	MDL	REF*	METHOD	DATES EXT/PREP	DATES ANALYSIS
Polynuclear Aromatic Hydrocarbons ***	ND	ug/Kg	**	1	8270	07/20/92	07/27/92
Total Hydrocarbons	ND	mg/Kg	40	3	5520-COF	07/16/92	07/17/92
Total Solids	96	%	0.1	3	2540B	---	07/17/92
Volatile Organics ***	ND	ug/Kg	**	1	8260	---	07/27/92

Volatile Organics	%Surrogate Recovery
1,2-Dichloroethane-d4	105%
Toluene-d8	97%
4-Bromofluorobenzene	87%

Polynuclear Aromatic Hydrocarbons	%Surrogate Recovery
Nitrobenzene-d5	82%
2-Fluorobiphenyl	94%
4-Terphenyl-d14	113%

COMMENTS: * Complete list of References found in Addendum I
** A list of volatile organics and polynuclear aromatic hydrocarbons analyzed for and their detection limits accompanies this report.
*** All compounds were below the detection limits except those listed above.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

Laboratory Sample Number: 9204986.5 **Date Received:** 07/15/92

Sample Matrix: Soil (results were reported on a dry weight basis) **Date Reported:** 07/29/92

Condition of Samples: Satisfactory **Field Prep:** None

Number & Type of Containers: Two glass jars & one VOA vial

Analysis Requested: Analysis as listed below

CONTINUED

PARAMETER	RESULT	UNITS	MDL	REF*	METHOD	DATES EXT/PREP	DATES ANALYSIS
Total Metals Preparation --	--		--	1	3050	07/16/92	-------
Priority Pollutant 13 Metals							
Antimony	ND	mg/Kg	100	1	6010	---	07/22/92
Arsenic	2 8	mg/Kg	1.0	1	7060	---	07/22/92
Beryllium	ND	mg/Kg	2.0	1	6010	---	07/22/92
Cadmium	ND	mg/Kg	2.0	1	6010	---	07/22/92
Chromium	10.0	mg/Kg	4.0	1	6010	---	07/22/92
Copper	14.0	mg/Kg	4.0	1	6010	---	07/22/92
Lead	ND	mg/Kg	10.0	1	6010	---	07/22/92
Mercury	ND	mg/Kg	0.25	1	7470	---	07/22/92
Nickel	10.0	mg/Kg	10.0	1	6010	---	07/22/92
Selenium	ND	mg/Kg	1.0	1	7740	---	07/22/92
Silver	ND	mg/Kg	2.0	1	6010	---	07/22/92
Thallium	ND	mg/Kg	1.0	1	7841	---	07/22/92
Zinc	28.1	mg/Kg	2.0	1	6010	---	07/22/92

COMMENTS: * Complete list of References found in Addendum I
** A list of volatile organics and polynuclear aromatic hydrocarbons analyzed for and their detection limits accompanies this report.
*** All compounds were below the detection limits except those listed above.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

Laboratory Sample Number: 9204986.6 **Date Received:** 07/15/92

Sample Matrix: Liquid **Date Reported:** 07/29/92

Condition of Samples: Satisfactory **Field Prep:** None

Number & Type of Containers: One VOA viel

Analysis Requested: Analysis as listed below

PARAMETER	RESULT	UNITS	MDL	REF*	METHOD	DATES EXT/PREP	DATES ANALYSIS
Volatile Organics ***	ND	ug/L	**	1	8260	---	07/27/92

Volatile Organics	%Surrogete Recovery
1,2-Dichloroethane-d4	101%
Toluene-d8	98%
4-Bromofluorobenzene	98%

COMMENTS: * Complete list of References found in Addendum I
** A list of volatile organics analyzed for and their detection limits accompanies this report.
*** All compounds were below the detection limits except those listed above.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

Laboratory Sample Number: 9204986.Spike **Date Received:** 07/15/92

Sample Matrix: Liquid **Date Reported:** 07/29/92

Condition of Samples: Satisfactory **Field Prep:** None

Number & Type of Containers: N/A

Analysis Requested: Analysis as listed below

PARAMETER	%RECOVERY
Total Hydrocarbons	97%
Volatile Organics	
1,1-Dichloroethylene	97%
Trichloroethylene	90%
Benzene	92%
Toluene	89%
Chlorobenzene	90%

COMMENTS: * Complete list of References found in Addendum I

PETROLEUM HYDROCARBON SCAN

Alpha Job Number: 9204986 Date Reported: 7/29/92
Alpha Sample Number(s): 9204986.1-.2
Method Detection Limit: 1.0 mg/L

COMPOUNDS

Mineral Spirits
Gasoline
Fuel Oil #2
Fuel Oil #4
Fuel Oil #6
Motor Oil
Kerosene
Diesel Fuel

ALPHA ANALYTICAL LABS
POLYNUCLEAR AROMATIC HYDROCARBONS ANALYSIS by GC/MS
METHOD 8270

Alpha Job Number: 9204986 Date Reported: 7/29/92
Alpha Sample Number(s): 9204986.3-.5
Method Detection Limit: Stated below

COMPOUNDS	
Acenaphthene	145 ug/Kg
Acenephthylene	130 ug/Kg
Anthracene	125 ug/Kg
Benzo(a)anthracene	155 ug/Kg
Benzo(b)fluoranthene	175 ug/Kg
Benzo(k)fluorenthene	175 ug/Kg
Benzo(ghi)perylene	250 ug/Kg
Benzo(a)pyrene	190 ug/Kg
2-Chloronaphthelene	150 ug/Kg
Chrysene	155 ug/Kg
Dibenzo(a,h)anthracene	245 ug/Kg
Fluorenthene	145 ug/Kg
Fluorene	135 ug/Kg
Indeno(1,2,3-c,d)pyrene	235 ug/Kg
Nephthalene	110 ug/Kg
Phenanthrene	130 ug/Kg
Pyrene	140 ug/Kg
1-Methyl naphthalene	350 ug/Kg
2-Methyl naphthalene	90 ug/Kg

ALPHA ANALYTICAL LABS
VOLATILE ORGANICS ANALYSIS by GC/MS
METHOD 8260

Alpha Job Number: 9204986 Date Reported: 7/29/92
Alpha Sample Number(s): 9204986.1-.2, .6
Method Detection Limit: Stated below

COMPOUNDS	
Methylene chloride	5.0 ug/L
1,1-Dichloroethane	1.5 ug/L
Chloroform	1.5 ug/L
Carbon tetrachloride	1.0 ug/L
1,2-Dichloropropane	3.5 ug/L
Dibromochloromethane	1.0 ug/L
1,1,2-Trichloroethane	1.5 ug/L
2-Chloroethylvinyl ether	10.0 ug/L
Tetrachloroethene	1.5 ug/L
Chlorobenzene	3.5 ug/L
Trichlorofluoromethane	5.0 ug/L
1,2-Dichloroethane	1.5 ug/L
1,1,1-Trichloroethane	1.0 ug/L
Bromodichloromethane	1.0 ug/L
Trans-1,3-Dichloropropene	1.5 ug/L
Cis-1,3-Dichloropropene	1.0 ug/L
Bromoform	1.0 ug/L
1,1,2,2-Tetrachloroethane	1.0 ug/L
Benzene	1.0 ug/L
Toluene	1.5 ug/L
Ethyl benzene	1.0 ug/L
Xylenes	1.0 ug/L
Chloromethane	10.0 ug/L
Bromomethane	2.0 ug/L
Vinyl chloride	3.5 ug/L
Chloroethane	2.0 ug/L
1,1-Dichloroethene	1.5 ug/L
Trans-1,2-dichloroethene	1.5 ug/L
Cis-1,2-dichloroethene	1.0 ug/L
Trichloroethene	1.0 ug/L
Dibromomethane	10.0 ug/L
1,4-Dichloro-2-butane	10.0 ug/L
Ethanol	-- ug/L
Iodomethane	-- ug/L
1,2,3-Trichloropropane	10.0 ug/L
Dichlorodifluoromethane	10.0 ug/L
Acetone	10.0 ug/L
Carbon disulfide	10.0 ug/L
2-Butanone	4.5 ug/L
Vinyl acetate	10.0 ug/L
4-Methyl-2-pentanone	10.0 ug/L
2-Hexanone	10.0 ug/L

ALPHA ANALYTICAL LABS
VOLATILE ORGANICS ANALYSIS by GC/MS
METHOD 8260

Alpha Job Number: 9204986 Date Reported: 7/29/92
Alpha Sample Number(s): 9204986.1-.2, .6
Method Detection Limit: Stated below

COMPOUNDS	
Styrene	1.0 ug/L
Ethyl methacrylate	-- ug/L
Acrolein	25.0 ug/L
Acrylonitrile	25.0 ug/L
Methyl tert butyl ether	10.0 ug/L
1,2-Dichlorobenzene	10.0 ug/L
1,3-Dichlorobenzene	10.0 ug/L
1,4-Dichlorobenzene	10.0 ug/L

ALPHA ANALYTICAL LABS
VOLATILE ORGANICS ANALYSIS by GC/MS
METHOD 8260

Alpha Job Number: 9204986 Date Reported: 7/29/92
Alpha Sample Number(s): 9204986.3-.5
Method Detection Limit: 5X Higher than stated below

COMPOUNDS	
Methylene chloride	5 ug/Kg
1,1-Dichloroethane	2 ug/Kg
Chloroform	2 ug/Kg
Carbon tetrachloride	1 ug/Kg
1,2-Dichloropropane	4 ug/Kg
Dibromochloromethane	1 ug/Kg
1,1,2-Trichloroethane	2 ug/Kg
2-Chloroethylvinyl ether	10 ug/Kg
Tetrachloroethene	2 ug/Kg
Chlorobenzene	4 ug/Kg
Trichlorofluoromethane	5 ug/Kg
1,2-Dichloroethane	2 ug/Kg
1,1,1-Trichloroethane	1 ug/Kg
Bromodichloromethane	1 ug/Kg
Trans-1,3-Dichloropropene	2 ug/Kg
Cis-1,3-Dichloropropene	1 ug/Kg
Bromoform	1 ug/Kg
1,1,2,2-Tetrachloroethane	1 ug/Kg
Benzene	1 ug/Kg
Toluene	2 ug/Kg
Ethyl benzene	1 ug/Kg
Xylenes	1 ug/Kg
Chloromethane	10 ug/Kg
Bromomethane	2 ug/Kg
Vinyl chloride	4 ug/Kg
Chloroethane	2 ug/Kg
1,1-Dichloroethene	2 ug/Kg
Trans-1,2-dichloroethene	2 ug/Kg
Cis-1,2-dichloroethene	1 ug/Kg
Trichloroethene	1 ug/Kg
Dibromomethane	10 ug/Kg
1,4-Dichloro-2-butane	10 ug/Kg
Ethanol	25 ug/Kg
Iodomethane	10 ug/Kg
1,2,3-Trichloropropane	10 ug/Kg
Dichlorodifluoromethane	10 ug/Kg
Acetone	10 ug/Kg
Carbon disulfide	10 ug/Kg
2-Butanone	5 ug/Kg
Vinyl acetate	10 ug/Kg
4-Methyl-2-pentanone	10 ug/Kg
2-Hexanone	10 ug/Kg

A*HA ANALYTICAL LABS
VOLATILE ORGANICS ANALYSIS by GC/MS
METHOD 8260

Alpha Job Number: 9204986 Date Reported: 7/29/92
Alpha Sample Number(s): 9204986.3-.5
Method Detection Limit: 5X Higher than stated below

COMPOUNDS	
Styrene	1 ug/Kg
Ethyl methacrylate	10 ug/Kg
Acrolein	10 ug/Kg
Acrylonitrile	10 ug/Kg
Methyl tert butyl ether	10 ug/Kg
1,2-Dichlorobenzene	10 ug/Kg
1,3-Dichlorobenzene	10 ug/Kg
1,4-Dichlorobenzene	10 ug/Kg

ALPHA ANALYTICAL LABS
ADDENDUM I
REFERENCES

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ALPHA ANALYTICAL LABS
ADDENDUM I
REFERENCES

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ALPHA ANALYTICAL LABORATORIES

ACCEPTABLE SURROGATE SPIKE RECOVERY LIMITS

FRACTION	SURROGATE COMPOUND	LOW/MEDIUM WATER	LOW/MEDIUM SOIL/SEDIMENT
VOA	Toluene-d_8	88-110 %	81-117 %
VOA	4-Bromofluorobenzene	86-115 %	74-121 %
VOA	1,2-Dichloroethane-d_4	76-114 %	70-121 %
BNA	Nitrobenzene-d_5	35-114 %	23-120 %
BNA	2-Fluorobiphenyl	43-116 %	30-115 %
BNA	p-Terphenyl-d_{14}	33-141 %	18-137 %
BNA	Phenol-d_5	10-94 %	24-113 %
BNA	2-Fluorophenol	10-100 %	25-121 %
BNA	2,4,6-Tribromophenol	10-123 %	19-122 %
Pest.	Dibutylchlorendate	60-150 % *	60-150 % *

* Advisory Limit - No action required

ALPHA ANALYTICAL LABORATORIES

ACCEPTABLE MATRIX SPIKE RECOVERY LIMITS

FOR ORGANICS

FRACTION	MATRIX SPIKE COMPOUND	WATER	SOIL/SEDIMENT
VOA	1,1-Dichloroethene	61-145 %	59-172 %
VOA	Trichloroethene	71-120 %	62-137 %
VOA	Chlorobenzene	75-130 %	60-133 %
VOA	Toluene	76-125 %	59-139 %
VOA	Benzene	76-127 %	66-142 %
BN	1,2,4-Trichlorobenzene	39-98 %	38-107 %
BN	Acenaphthene	46-118 %	31-137 %
BN	2,4-Dinitrotoluene	39-139 %	39-139 %
BN	Di-n-butyl phthalate	11-117 %	29-135 %
BN	Pyrene	26-127 %	35-142 %
BN	N-nitros-di-n-propylamine	41-116 %	41-126 %
BN	1,4-Dichlorobenzene	36-97 %	28-104 %
Acid	Pentachlorophenol	14-176 %	14-176 %
Acid	Phenol	12-89 %	26-90 %
Acid	2-Chlorophenol	27-123 %	25-102 %
Acid	4-Chloro-3-methylphenol	23-97 %	26-103 %
Acid	4-Nitrophenol	10-80 %	11-114 %
Pest.	Lindane	56-123 %	46-127 %
Pest.	Heptachlor	40-131 %	35-130 %
Pest.	Aldrin	40-120 %	34-132 %
Pest.	Dieldrin	52-126 %	31-134 %
Pest.	Endrin	56-121 %	42-139 %
Pest.	4,4'-DDT	38-127 %	23-134 %

ALPHA ANALYTICAL LABORATORIES

ACCEPTABLE MATRIX SPIKE RECOVERY LIMITS

FOR INORGANICS

PARAMETER GROUP	WATER	SOIL
Metals	75-125 %	60-140 %
Wet Chemistry	70-130 %	N/A

CHAIN OF CUSTODY RECORD

Rizzo Associates, Inc
235 West Central Street
Natick, MA 01760
(508) 651-3401
(508) 651-1189 (FAX)

Rizzo Project Number: 2428-01
Rizzo Project Name: John Solomon, Inc - Somerville
Samplers (signatures):
Lab: Alpha
Lab ID #:
Send report to: JANINA Curtis
Turnaround Time: STANDARD

Rizzo Sample Number	Sample Depth	Sample Location	Sample Collected		Container			Sample Matrix	Requested Analyses
			Date	Time	#	Type	Preservative		
JSS-B2GW101		Somerville	7-14-92	AM	2	VOAs	HCl	water	VOCs (8260)
JSS-B2GW101		Somerville	↓	↓	2	Amber	↓	↓	TPH Petscan
JSS B3 GW102		↓	↓	↓	2	VOAs	↓	↓	VOCs
" "		↓	↓	↓	2	Amber	↓	↓	TPH Petscan
JSSTP2'SS101	2'	Somerville	7-14-92	PM	1	big VOA	—	SOIL	VOCs
" "	" "	↓	↓	↓	1	JAR	—	↓	TPH, Total PP13 metals
" "	" "	↓	↓	↓	1	JAR	—	↓	PAHs
JSS TP4'SS102	4'	↓	↓	↓	1	big VOA	—	↓	VOCs
" "	" "	↓	↓	↓	1	JAR	—	↓	TPH, Total PP13 metals
" "	" "	↓	↓	↓	1	JAR	—	↓	PAHs
JSS TP7'SS103	7'	↓	↓	↓	1	big VOA	—	↓	VOCs
" "	" "	↓	↓	↓	1	JAR	—	↓	TPH, Total PP13 metals
" "	" "	↓	↓	↓	1	JAR	—	↓	PAHs

Relinquished by:
Received by: W. T. Grand
Date: 7/15/92
Time: 10 10 AM

Method of Shipment: Courier

WHITE ANALYTICAL LABORATORY • YELLOW QC OFFICER • PINK CHAIN OF CUSTODY NOTEBOOK • GOLD PROJECT FILE

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

CERTIFICATE OF ANALYSIS

Client: Rizzo Associates
Address: 235 West Central Street
Natick, MA 01760
Attn: Cheryl A. Place
Project Number: 2428-01
Site: Solomon

Laboratory Job Number: 9207615
Invoice Number: 30606
Date Received: 26-OCT-92
Date Reported: 09-NOV-92
Delivery Method: Alpha

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
9207615-01	JSS-RZ3-SS6-301	Somerville
9207615-02	JSS-SB1-SS-302	Somerville
9207615-03	JSS-SB1-SS-303	Somerville
9207615-04	JSS-RZ2-GW-401	Somerville
9207615-05	JSS-RZ2-GW-402	Somerville
9207615-06	JSS-RZ3-GW-403	Somerville
9207615-07	JSS-RZ1-GW-404	Somerville
9207615-08	TRIP BLANK	Somerville

Authorized by:

Scott McLean - Laboratory Director

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

Laboratory Sample Number: 9207615-01
JSS-RZ3-SS6-301
Sample Matrix: SOIL
Condition of Sample: Satisfactory
Number & Type of Containers: 4 Glass,1 Vial

Date Received: 26-OCT-92
Date Reported: 09-NOV-92
Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	
						PREP	ANALYSIS
Solids, Total	89	%	.1	3	2540B		31-Oct
Cyanide, Total	ND	mg/kg	.25	1	9010		05-Nov
Hydrocarbons, Total	82	mg/kg	40	1	9073	30-Oct	31-Oct
Total Metals				1	3005/3050		
Antimony, Total	ND	mg/kg	100	1	6010	27-Oct	28-Oct
Arsenic, Total	1.8	mg/kg	1	1	7060	27-Oct	29-Oct
Barium, Total	52.7	mg/kg	10	1	6010	27-Oct	28-Oct
Beryllium, Total	ND	mg/kg	2	1	6010	27-Oct	28-Oct
Cadmium, Total	ND	mg/kg	2	1	6010	27-Oct	28-Oct
Chromium, Total	6.6	mg/kg	4	1	6010	27-Oct	28-Oct
Copper, Total	6.6	mg/kg	4	1	6010	27-Oct	28-Oct
Lead, Total	61.4	mg/kg	10	1	6010	27-Oct	28-Oct
Mercury, Total	ND	mg/kg	.25	1	7470/7471	02-Nov	02-Nov
Nickel, Total	ND	mg/kg	10	1	6010	27-Oct	28-Oct
Selenium, Total	ND	mg/kg	1	1	7740	27-Oct	29-Oct
Silver, Total	ND	mg/kg	2	1	6010	27-Oct	28-Oct
Thallium, Total	ND	mg/kg	1	1	7841	27-Oct	29-Oct
Zinc, Total	41.7	mg/kg	2	1	6010	27-Oct	28-Oct
Polychlorinated Biphenyls				1	8080	27-Oct	02-NOV
Arochlor 1221	ND	ug/kg	250				
Arochlor 1232	ND	ug/kg	250				
Arochlor 1242/PCB 1016	ND	ug/kg	250				
Arochlor 1248	ND	ug/kg	250				
Arochlor 1254	ND	ug/kg	250				
Arochlor 1260	ND	ug/kg	250				
Arochlor 1262	ND	ug/kg	250				
Arochlor 1268	ND	ug/kg	250				
SURROGATE RECOVERY							
Dibutylchlorendate	100	%					

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: 9207615-01

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	
						PREP	ANALYSI
Volatile Organics by GC/MS				1	8260		06-NO
Methylene chloride	ND	ug/kg	25				
1,1-Dichloroethane	ND	ug/kg	7.5				
Chloroform	ND	ug/kg	7.5				
Carbon tetrachloride	ND	ug/kg	5				
1,2-Dichloropropane	ND	ug/kg	17.5				
Dibromochloromethane	ND	ug/kg	5				
1,1,2-Trichloroethane	ND	ug/kg	7.5				
2-Chloroethylvinyl ether	ND	ug/kg	50				
Tetrachloroethene	ND	ug/kg	7.5				
Chlorobenzene	ND	ug/kg	17.5				
Trichlorofluoromethane	ND	ug/kg	25				
1,2-Dichloroethane	ND	ug/kg	7.5				
1,1,1-Trichloroethane	ND	ug/kg	5				
Bromodichloromethane	ND	ug/kg	5				
trans-1,3-Dichloropropene	ND	ug/kg	7.5				
cis-1,3-Dichloropropene	ND	ug/kg	5				
Bromoform	ND	ug/kg	5				
1,1,2,2-Tetrachloroethane	ND	ug/kg	5				
Benzene	ND	ug/kg	5				
Toluene	ND	ug/kg	7.5				
Ethylbenzene	ND	ug/kg	5				
Chloromethane	ND	ug/kg	50				
Methyl bromide	ND	ug/kg	10				
Vinyl chloride	ND	ug/kg	17.5				
Chloroethane	ND	ug/kg	10				
1,1-Dichloroethene	ND	ug/kg	7.5				
trans-1,2-Dichloroethene	ND	ug/kg	7.5				
Trichloroethene	ND	ug/kg	5				
1,2-Dichlorobenzene	ND	ug/kg	50				
1,3-Dichlorobenzene	ND	ug/kg	50				
1,4-Dichlorobenzene	ND	ug/kg	50				
Methyl tert butyl ether	ND	ug/kg	50				
Xylenes	ND	ug/kg	5				
cis-1,2-Dichloroethene	ND	ug/kg	5				
Dibromomethane	ND	ug/kg	50				
1,4-Dichloro-2-butane	ND	ug/kg	50				
Ethanol	ND	ug/kg	125				
Iodomethane	ND	ug/kg	50				
1,2,3-Trichloropropane	ND	ug/kg	50				
Styrene	ND	ug/kg	5				
Dichlorodifluoromethane	ND	ug/kg	50				
Acetone	ND	ug/kg	50				
Carbon disulfide	ND	ug/kg	50				
2-Butanone	ND	ug/kg	22.5				
Vinyl acetate	ND	ug/kg	50				
4-Methyl-2-pentanone	ND	ug/kg	50				
2-Hexanone	ND	ug/kg	50				
Ethyl methacrylate	ND	ug/kg	50				

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: 9207615-01

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	
						PREP	ANALYSIS
Volatile Organics by GC/MS continued				1	8260		06-NOV
Acrolein	ND	ug/kg	125				
Acrylonitrile	ND	ug/kg	50				
SURROGATE RECOVERY							
1,2-Dichloroethane-d4	102	%					
Toluene-d8	95	%					
4-Bromofluorobenzene	100	%					

Comments: * Complete list of References found in Addendum 1

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: 9207615-01

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	
						PREP	ANALYSI
Semi-volatile Organics by GC/MS				1	8270		27-OC
Acenaphthene	ND	ug/kg	145				
Benzidine	ND	ug/kg	1220				
1,2,4-Trichlorobenzene	ND	ug/kg	175				
Hexachlorobenzene	ND	ug/kg	145				
Bis(2-chloroethyl)ether	ND	ug/kg	150				
2-Chloronaphthalene	ND	ug/kg	150				
1,2-Dichlorobenzene	ND	ug/kg	140				
1,3-Dichlorobenzene	ND	ug/kg	165				
1,4-Dichlorobenzene	ND	ug/kg	115				
3,3'-Dichlorobenzidine	ND	ug/kg	325				
2,4-Dinitrotoluene	ND	ug/kg	185				
2,6-Dinitrotoluene	ND	ug/kg	140				
Azobenzene	ND	ug/kg	135				
Fluoranthene	153	ug/kg	145				
4-Chlorophenyl phenyl ether	ND	ug/kg	150				
4-Bromophenyl phenyl ether	ND	ug/kg	140				
Bis(2-chloroisopropyl)ether	ND	ug/kg	100				
Bis(2-chloroethoxy)methane	ND	ug/kg	110				
Hexachlorobutadiene	ND	ug/kg	400				
Hexachlorocyclopentadiene	ND	ug/kg	375				
Hexachloroethane	ND	ug/kg	250				
Isophorone	ND	ug/kg	120				
Naphthalene	ND	ug/kg	110				
Nitrobenzene	ND	ug/kg	95				
n-Nitrosodiphenylamine	ND	ug/kg	125				
n-Nitrosodi-n-propylamine	ND	ug/kg	130				
Bis(2-ethylhexyl)phthalate	ND	ug/kg	455				
Butyl benzyl phthalate	ND	ug/kg	100				
Di-n-butylphthalate	ND	ug/kg	135				
Di-n-octylphthalate	ND	ug/kg	120				
Diethyl phthalate	ND	ug/kg	250				
Dimethyl phthalate	ND	ug/kg	250				
Benzo(a)anthracene	ND	ug/kg	155				
Benzo(a)pyrene	ND	ug/kg	190				
Benzo(b,k)fluoranthene	ND	ug/kg	175				
Chrysene	ND	ug/kg	155				
Acenaphthylene	ND	ug/kg	130				
Anthracene	ND	ug/kg	125				
Benzo(ghi)perylene	ND	ug/kg	250				
Fluorene	ND	ug/kg	135				
Phenanthrene	ND	ug/kg	130				
Dibenzo(a,h)anthracene	ND	ug/kg	245				
Indeno(1,2,3-cd)pyrene	ND	ug/kg	235				
Pyrene	ND	ug/kg	140				
Aniline	ND	ug/kg	500				
4-Chloroaniline	ND	ug/kg	200				
1-Methylnaphthalene	ND	ug/kg	350				
2-Nitroaniline	ND	ug/kg	160				

Comments: * Complete list of References found in Addendum 1

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: 9207615-01

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	
						PREP	ANALYSIS
Semi-volatile Organics by GC/MS continued				1	8270		27-OCT
3-Nitroaniline	ND	ug/kg	300				
4-Nitroaniline	ND	ug/kg	290				
Dibenzofuran	ND	ug/kg	100				
a,a-Dimethylphenethylamine	ND	ug/kg	2250				
Hexachloropropene	ND	ug/kg	1000				
Nitrosodi-n-butylamine	ND	ug/kg	245				
2-Methylnaphthalene	ND	ug/kg	90				
Tetrachlorobenzene	ND	ug/kg	620				
Pentachlorobenzene	ND	ug/kg	640				
a-Naphthalamine	ND	ug/kg	1000				
b-Naphthalamine	ND	ug/kg	465				
Diphenylamine	ND	ug/kg	205				
Acetophenetidide	ND	ug/kg	500				
Dimethoate	ND	ug/kg	1000				
4-Aminobiphenyl	ND	ug/kg	515				
Pentachloronitrobenzene	ND	ug/kg	195				
Isodrin	ND	ug/kg	190				
p-Dimethylaminoazobenzene	ND	ug/kg	355				
Chlorobenzilate	ND	ug/kg	800				
Bis(2-ethylhexyl)adipate	ND	ug/kg	165				
3-Methylcholanthrene	ND	ug/kg	1000				
Ethylmethanesulfonate	ND	ug/kg	730				
Acetophenone	ND	ug/kg	235				
Nitrosodipiperidine	ND	ug/kg	1000				
7,12-Dimethylbenz(a)anthrecene	ND	ug/kg	1215				
n-Nitrosodimethylamine	ND	ug/kg	2000				
2,4,6-Trichlorophenol	ND	ug/kg	105				
p-Chloro-m-cresol	ND	ug/kg	150				
2-Chlorophenol	ND	ug/kg	165				
2,4-Dichlorophenol	ND	ug/kg	500				
2,4-Dimethylphenol	ND	ug/kg	115				
2-Nitrophenol	ND	ug/kg	160				
4-Nitrophenol	ND	ug/kg	6000				
2,4-Dinitrophenol	ND	ug/kg	750				
4,6-Dinitro-o-cresol	ND	ug/kg	870				
Pentachlorophenol	ND	ug/kg	350				
Phenol	ND	ug/kg	415				
Cresol, Total	ND	ug/kg	360				
2,4,5-Trichlorophenol	ND	ug/kg	135				
2,6-Dichlorophenol	ND	ug/kg	235				
Benzoic Acid	ND	ug/kg	2000				
Benzyl Alcohol	ND	ug/kg	290				
SURROGATE RECOVERY							
2-Fluorophenol	70	%					
Phenol-d6	78	%					
Nitrobenzene-d5	98	%					

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: 9207615-01

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	
						PREP	ANALYSI
Semi-volatile Organics by GC/MS continued				1	8270		27-OC
2-Fluorobiphenyl	104	%					
2,4,6-Tribromophenol	80	%					
4-Terphenyl-d14	102	%					
Organochlorine Pesticides				1	8080	27-Oct	02-NOV
Delta-BHC	ND	ug/l	.2				
Lindane	ND	ug/l	.2				
Alpha-BHC	ND	ug/l	.2				
Beta-BHC	ND	ug/l	.2				
Heptachlor	ND	ug/l	.2				
Alachlor	ND	ug/l	.2				
Atrazine	ND	ug/l	.2				
Aldrin	ND	ug/l	.2				
Heptachlor epoxide	ND	ug/l	.2				
Endrin	ND	ug/l	.2				
Endrin aldehyde	ND	ug/l	.2				
Endrin ketone	ND	ug/l	.2				
Dieldrin	ND	ug/l	.2				
4,4'-DDE	ND	ug/l	.2				
4,4'-DDD	ND	ug/l	.2				
4,4'-DDT	ND	ug/l	.2				
Endosulfan I	ND	ug/l	.2				
Endosulfan II	ND	ug/l	.2				
Endosulfan sulfate	ND	ug/l	.2				
Methoxychlor	ND	ug/l	.2				
Chlordane	ND	ug/l	.2				
Toxaphene	ND	ug/l	.2				
SURROGATE RECOVERY							
Dibutylchlorendate	100	%					

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

Laboratory Sample Number: 9207615-02
JSS-SB1-SS-302
Sample Matrix: SOIL
Condition of Sample: Satisfactory
Number & Type of Containers: 4 Glass,1 Vial

Date Received: 26-OCT-92
Date Reported: 09-NOV-92
Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	
						PREP	ANALYSIS
Solids, Total	93	%	.1	3	2540B		31-Oct
Cyanide, Total	ND	mg/kg	.25	1	9010		05-Nov
Hydrocarbons, Total	56	mg/kg	40	1	9073	30-Oct	31-Oct
Total Metals				1	3005/3050		
Antimony, Total	ND	mg/kg	100	1	6010	27-Oct	28-Oct
Arsenic, Total	3.1	mg/kg	1	1	7060	27-Oct	29-Oct
Barium, Total	18.7	mg/kg	10	1	6010	27-Oct	28-Oct
Beryllium, Total	ND	mg/kg	2	1	6010	27-Oct	28-Oct
Cadmium, Total	ND	mg/kg	2	1	6010	27-Oct	28-Oct
Chromium, Total	10.4	mg/kg	4	1	6010	27-Oct	28-Oct
Copper, Total	8.3	mg/kg	4	1	6010	27-Oct	28-Oct
Lead, Total	14.6	mg/kg	10	1	6010	27-Oct	28-Oct
Mercury, Total	ND	mg/kg	.25	1	7470/7471	02-Nov	02-Nov
Nickel, Total	ND	mg/kg	10	1	6010	27-Oct	28-Oct
Selenium, Total	ND	mg/kg	1	1	7740	27-Oct	29-Oct
Silver, Total	ND	mg/kg	2	1	6010	27-Oct	28-Oct
Thallium, Total	ND	mg/kg	1	1	7841	27-Oct	29-Oct
Zinc, Total	25	mg/kg	2	1	6010	27-Oct	28-Oct
Polychlorinated Biphenyls				1	8080	27-Oct	02-NOV
Arochlor 1221	ND	ug/kg	250				
Arochlor 1232	ND	ug/kg	250				
Arochlor 1242/PCB 1016	ND	ug/kg	250				
Arochlor 1248	ND	ug/kg	250				
Arochlor 1254	ND	ug/kg	250				
Arochlor 1260	ND	ug/kg	250				
Arochlor 1262	ND	ug/kg	250				
Arochlor 1268	ND	ug/kg	250				
SURROGATE RECOVERY							
Dibutylchlorendate	38	%					

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: 9207615-02

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	
						PREP	ANALYSI
Volatile Organics by GC/MS				1	8260		06-NO
Methylene chloride	ND	ug/kg	25				
1,1-Dichloroethane	ND	ug/kg	7.5				
Chloroform	ND	ug/kg	7.5				
Carbon tetrachloride	ND	ug/kg	5				
1,2-Dichloropropane	ND	ug/kg	17.5				
Dibromochloromethane	ND	ug/kg	5				
1,1,2-Trichloroethane	ND	ug/kg	7.5				
2-Chloroethylvinyl ether	ND	ug/kg	50				
Tetrachloroethene	ND	ug/kg	7.5				
Chlorobenzene	ND	ug/kg	17.5				
Trichlorofluoromethane	ND	ug/kg	25				
1,2-Dichloroethane	ND	ug/kg	7.5				
1,1,1-Trichloroethane	ND	ug/kg	5				
Bromodichloromethane	ND	ug/kg	5				
trans-1,3-Dichloropropene	ND	ug/kg	7.5				
cis-1,3-Dichloropropene	ND	ug/kg	5				
Bromoform	ND	ug/kg	5				
1,1,2,2-Tetrachloroethane	ND	ug/kg	5				
Benzene	ND	ug/kg	5				
Toluene	ND	ug/kg	7.5				
Ethylbenzene	ND	ug/kg	5				
Chloromethane	ND	ug/kg	50				
Methyl bromide	ND	ug/kg	10				
Vinyl chloride	ND	ug/kg	17.5				
Chloroethane	ND	ug/kg	10				
1,1-Dichloroethene	ND	ug/kg	7.5				
trans-1,2-Dichloroethene	ND	ug/kg	7.5				
Trichloroethene	ND	ug/kg	5				
1,2-Dichlorobenzene	ND	ug/kg	50				
1,3-Dichlorobenzene	ND	ug/kg	50				
1,4-Dichlorobenzene	ND	ug/kg	50				
Methyl tert butyl ether	ND	ug/kg	50				
Xylenes	ND	ug/kg	5				
cis-1,2-Dichloroethene	ND	ug/kg	5				
Dibromomethane	ND	ug/kg	50				
1,4-Dichloro-2-butane	ND	ug/kg	50				
Ethanol	ND	ug/kg	125				
Iodomethane	ND	ug/kg	50				
1,2,3-Trichloropropane	ND	ug/kg	50				
Styrene	ND	ug/kg	5				
Dichlorodifluoromethane	ND	ug/kg	50				
Acetone	ND	ug/kg	50				
Carbon disulfide	ND	ug/kg	50				
2-Butanone	ND	ug/kg	22.5				
Vinyl acetate	ND	ug/kg	50				
4-Methyl-2-pentanone	ND	ug/kg	50				
2-Hexanone	ND	ug/kg	50				
Ethyl methacrylate	ND	ug/kg	50				

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: 9207615-02

PARAMETER	RESULT	UNITS	RDL	REP	METHOD	DATES PREP	ANALYSIS
Volatile Organics by GC/MS continued				1	8260		06-NOV
Acrolein	ND	ug/kg	125				
Acrylonitrile	ND	ug/kg	50				
SURROGATE RECOVERY							
1,2-Dichloroethane-d4	101	%					
Toluene-d8	97	%					
4-Bromofluorobenzene	95	%					

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: 9207615-02

PARAMETER	RESULT	UNITS	RDL	REP	METHOD	DATES PREP	ANALYSI
Semi-volatile Organics by GC/MS				1	8270		27-OC
Acenaphthene	ND	ug/kg	290				
Benzidine	ND	ug/kg	2440				
1,2,4-Trichlorobenzene	ND	ug/kg	350				
Hexachlorobenzene	ND	ug/kg	290				
Bis(2-chloroethyl)ether	ND	ug/kg	300				
2-Chloronaphthalene	ND	ug/kg	300				
1,2-Dichlorobenzene	ND	ug/kg	280				
1,3-Dichlorobenzene	ND	ug/kg	330				
1,4-Dichlorobenzene	ND	ug/kg	230				
3,3'-Dichlorobenzidine	ND	ug/kg	650				
2,4-Dinitrotoluene	ND	ug/kg	370				
2,6-Dinitrotoluene	ND	ug/kg	280				
Azobenzene	ND	ug/kg	270				
Fluoranthene	ND	ug/kg	290				
4-Chlorophenyl phenyl ether	ND	ug/kg	300				
4-Bromophenyl phenyl ether	ND	ug/kg	280				
Bis(2-chloroisopropyl)ether	ND	ug/kg	200				
Bis(2-chloroethoxy)methane	ND	ug/kg	220				
Hexachlorobutadiene	ND	ug/kg	800				
Hexachlorocyclopentadiene	ND	ug/kg	750				
Hexachloroethane	ND	ug/kg	500				
Isophorone	ND	ug/kg	240				
Naphthalene	ND	ug/kg	220				
Nitrobenzene	ND	ug/kg	190				
n-Nitrosodiphenylamine	ND	ug/kg	250				
n-Nitrosodi-n-propylamine	ND	ug/kg	260				
Bis(2-ethylhexyl)phthalate	ND	ug/kg	910				
Butyl benzyl phthalate	ND	ug/kg	200				
Di-n-butylphthalate	ND	ug/kg	270				
Di-n-octylphthalate	ND	ug/kg	240				
Diethyl phthalate	ND	ug/kg	500				
Dimethyl phthalate	ND	ug/kg	500				
Benzo(a)anthracene	ND	ug/kg	310				
Benzo(a)pyrene	ND	ug/kg	380				
Benzo(b,k)fluoranthene	ND	ug/kg	350				
Chrysene	ND	ug/kg	310				
Acenaphthylene	ND	ug/kg	260				
Anthracene	ND	ug/kg	250				
Benzo(ghi)perylene	ND	ug/kg	500				
Fluorene	ND	ug/kg	270				
Phenanthrene	ND	ug/kg	260				
Dibenzo(a,h)anthracene	ND	ug/kg	490				
Indeno(1,2,3-cd)pyrene	ND	ug/kg	470				
Pyrene	ND	ug/kg	280				
Aniline	ND	ug/kg	1000				
4-Chloroaniline	ND	ug/kg	400				
1-Methylnaphthalene	ND	ug/kg	700				
2-Nitroaniline	ND	ug/kg	320				

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: 9207615-02

PARAMETER	RESULT	UNITS	RDL	REP	METHOD	DATES PREP	ANALYSIS
Semi-volatile Organics by GC/MS continued				1	8270		27-OCT
3-Nitroaniline	ND	ug/kg	600				
4-Nitroaniline	ND	ug/kg	580				
Dibenzofuran	ND	ug/kg	200				
a,a-Dimethylphenethylamine	ND	ug/kg	4500				
Hexachloropropene	ND	ug/kg	2000				
Nitrosodi-n-butylamine	ND	ug/kg	490				
2-Methylnaphthalene	ND	ug/kg	180				
Tetrachlorobenzene	ND	ug/kg	1240				
Pentachlorobenzene	ND	ug/kg	1280				
a-Naphthalamine	ND	ug/kg	2000				
b-Naphthalamine	ND	ug/kg	930				
Diphenylamine	ND	ug/kg	410				
Acetophenetidide	ND	ug/kg	1000				
Dimethoate	ND	ug/kg	2000				
4-Aminobiphenyl	ND	ug/kg	1030				
Pentachloronitrobenzene	ND	ug/kg	390				
Isodrin	ND	ug/kg	380				
p-Dimethylaminoazobenzene	ND	ug/kg	710				
Chlorobenzilate	ND	ug/kg	1600				
Bis(2-ethylhexyl)adipate	ND	ug/kg	330				
3-Methylcholanthrene	ND	ug/kg	2000				
Ethylmethanesulfonate	ND	ug/kg	1460				
Acetophenone	ND	ug/kg	470				
Nitrosodipiperidine	ND	ug/kg	2000				
7,12-Dimethylbenz(a)anthracene	ND	ug/kg	2430				
n-Nitrosodimethylamine	ND	ug/kg	4000				
2,4,6-Trichlorophenol	ND	ug/kg	210				
p-Chloro-m-cresol	ND	ug/kg	300				
2-Chlorophenol	ND	ug/kg	330				
2,4-Dichlorophenol	ND	ug/kg	1000				
2,4-Dimethylphenol	ND	ug/kg	230				
2-Nitrophenol	ND	ug/kg	320				
4-Nitrophenol	ND	ug/kg	12000				
2,4-Dinitrophenol	ND	ug/kg	1500				
4,6-Dinitro-o-cresol	ND	ug/kg	1740				
Pentachlorophenol	ND	ug/kg	700				
Phenol	ND	ug/kg	830				
Cresol, Total	ND	ug/kg	720				
2,4,5-Trichlorophenol	ND	ug/kg	270				
2,6-Dichlorophenol	ND	ug/kg	470				
Benzoic Acid	ND	ug/kg	4000				
Benzyl Alcohol	ND	ug/kg	580				
SURROGATE RECOVERY							
2-Fluorophenol	51	%					
Phenol-d6	62	%					
Nitrobenzene-d5	68	%					

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: 9207615-02

PARAMETER	RESULT	UNITS	RDL	REP	METHOD	DATES PREP	ANALYSI
Semi-volatile Organics by GC/MS continued				1	8270		27-OC
2-Fluorobiphenyl	100	%					
2,4,6-Tribromophenol	83	%					
4-Terphenyl-d14	114	%					
Organochlorine Pesticides				1	8080	27-Oct	02-OCT
Delta-BHC	ND	ug/l	.2				
Lindane	ND	ug/l	.2				
Alpha-BHC	ND	ug/l	.2				
Beta-BHC	ND	ug/l	.2				
Heptachlor	ND	ug/l	.2				
Alachlor	ND	ug/l	.2				
Atrazine	ND	ug/l	.2				
Aldrin	ND	ug/l	.2				
Heptachlor epoxide	ND	ug/l	.2				
Endrin	ND	ug/l	.2				
Endrin aldehyde	ND	ug/l	.2				
Endrin ketone	ND	ug/l	.2				
Dieldrin	ND	ug/l	.2				
4,4'-DDE	ND	ug/l	.2				
4,4'-DDD	ND	ug/l	.2				
4,4'-DDT	ND	ug/l	.2				
Endosulfan I	ND	ug/l	.2				
Endosulfan II	ND	ug/l	.2				
Endosulfan sulfate	ND	ug/l	.2				
Methoxychlor	ND	ug/l	.2				
Chlordane	ND	ug/l	.2				
Toxaphene	ND	ug/l	.2				
SURROGATE RECOVERY							
Dibutylchlorendate	38	%					

Comments: * Complete list of References found in Addendum I

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

Laboratory Sample Number: 9207615-03
JSS-SB1-SS-303
Sample Matrix: SOIL
Condition of Sample: Satisfactory
Number & Type of Containers: 4 Glass,1 Vial

Date Received: 26-OCT-92
Date Reported: 09-NOV-92
Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	
						PREP	ANALYSIS
Solids, Total	96	%	.1	3	2540B		31-Oct
Cyanide, Total	ND	mg/kg	.25	1	9010		05-Nov
Hydrocarbons, Total	2920	mg/kg	40	1	9073	30-Oct	31-Oct
Total Metals				1	3005/3050		
Antimony, Total	ND	mg/kg	100	1	6010	27-Oct	28-Oct
Arsenic, Total	4.7	mg/kg	1	1	7060	27-Oct	29-Oct
Barium, Total	20.3	mg/kg	10	1	6010	27-Oct	28-Oct
Beryllium, Total	ND	mg/kg	2	1	6010	27-Oct	28-Oct
Cadmium, Total	ND	mg/kg	2	1	6010	27-Oct	28-Oct
Chromium, Total	24.4	mg/kg	4	1	6010	27-Oct	28-Oct
Copper, Total	8.1	mg/kg	4	1	6010	27-Oct	28-Oct
Lead, Total	14.2	mg/kg	10	1	6010	27-Oct	28-Oct
Mercury, Total	ND	mg/kg	.25	1	7470/7471	02-Nov	02-Nov
Nickel, Total	18.3	mg/kg	10	1	6010	27-Oct	28-Oct
Selenium, Total	ND	mg/kg	1	1	7740	27-Oct	29-Oct
Silver, Total	ND	mg/kg	2	1	6010	27-Oct	28-Oct
Thallium, Total	ND	mg/kg	1	1	7841	27-Oct	29-Oct
Zinc, Total	24.4	mg/kg	2	1	6010	27-Oct	28-Oct
Polychlorinated Biphenyls				1	8080	27-Oct	02-NOV
Arochlor 1221	ND	ug/kg	250				
Arochlor 1232	ND	ug/kg	250				
Arochlor 1242/PCB 1016	ND	ug/kg	250				
Arochlor 1248	ND	ug/kg	250				
Arochlor 1254	ND	ug/kg	250				
Arochlor 1260	ND	ug/kg	250				
Arochlor 1262	ND	ug/kg	250				
Arochlor 1268	ND	ug/kg	250				
SURROGATE RECOVERY							
Dibutylchlorendate	121	%					

Comments: * Complete list of References found in Addendum I

Laboratory Sample Number: 9207615-03

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	
						PREP	ANALYSI
Volatile Organics by GC/MS				1	8260		06-NO
Methylene chloride	ND	ug/kg	25				
1,1-Dichloroethane	ND	ug/kg	7.5				
Chloroform	ND	ug/kg	7.5				
Carbon tetrachloride	ND	ug/kg	5				
1,2-Dichloropropane	ND	ug/kg	17.5				
Dibromochloromethane	ND	ug/kg	5				
1,1,2-Trichloroethane	ND	ug/kg	7.5				
2-Chloroethylvinyl ether	ND	ug/kg	50				
Tetrachloroethene	ND	ug/kg	7.5				
Chlorobenzene	ND	ug/kg	17.5				
Trichlorofluoromethane	ND	ug/kg	25				
1,2-Dichloroethane	ND	ug/kg	7.5				
1,1,1-Trichloroethane	ND	ug/kg	5				
Bromodichloromethane	ND	ug/kg	5				
trans-1,3-Dichloropropene	ND	ug/kg	7.5				
cis-1,3-Dichloropropene	ND	ug/kg	5				
Bromoform	ND	ug/kg	5				
1,1,2,2-Tetrachloroethane	ND	ug/kg	5				
Benzene	ND	ug/kg	5				
Toluene	ND	ug/kg	7.5				
Ethylbenzene	ND	ug/kg	5				
Chloromethane	ND	ug/kg	50				
Methyl bromide	ND	ug/kg	10				
Vinyl chloride	ND	ug/kg	17.5				
Chloroethane	ND	ug/kg	10				
1,1-Dichloroethene	ND	ug/kg	7.5				
trans-1,2-Dichloroethene	ND	ug/kg	7.5				
Trichloroethene	ND	ug/kg	5				
1,2-Dichlorobenzene	ND	ug/kg	50				
1,3-Dichlorobenzene	ND	ug/kg	50				
1,4-Dichlorobenzene	ND	ug/kg	50				
Methyl tert butyl ether	ND	ug/kg	50				
Xylenes	ND	ug/kg	5				
cis-1,2-Dichloroethene	ND	ug/kg	5				
Dibromomethane	ND	ug/kg	50				
1,4-Dichloro-2-butane	ND	ug/kg	50				
Ethanol	ND	ug/kg	125				
Iodomethane	ND	ug/kg	50				
1,2,3-Trichloropropane	ND	ug/kg	50				
Styrene	ND	ug/kg	5				
Dichlorodifluoromethane	ND	ug/kg	50				
Acetone	ND	ug/kg	50				
Carbon disulfide	ND	ug/kg	50				
2-Butanone	ND	ug/kg	22.5				
Vinyl acetate	ND	ug/kg	50				
4-Methyl-2-pentanone	ND	ug/kg	50				
2-Hexanone	ND	ug/kg	50				
Ethyl methacrylate	ND	ug/kg	50				

Comments: * Complete list of References found in Addendum I

Laboratory Sample Number: 9207615-03

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	
						PREP	ANALYSIS
Volatile Organics by GC/MS continued				1	8260		06-NOV
Acrolein	ND	ug/kg	125				
Acrylonitrile	ND	ug/kg	50				
SURROGATE RECOVERY							
1,2-Dichlorcethane-d4	95	%					
Toluene-d8	96	%					
4-Bromofluorobenzene	96	%					

Comments: * Complete list of References found in Addendum I

Laboratory Sample Number: 9207615-03

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	
						PREP	ANALYSI
Semi-volatile Organics by GC/MS				1	8270		27-OC
Acenaphthene	ND	ug/kg	725				
Benzidine	ND	ug/kg	6100				
1,2,4-Trichlorobenzene	ND	ug/kg	875				
Hexachlorobenzene	ND	ug/kg	725				
Bis(2-chloroethyl)ether	ND	ug/kg	750				
2-Chloronaphthalene	ND	ug/kg	750				
1,2-Dichlorobenzene	ND	ug/kg	700				
1,3-Dichlorobenzene	ND	ug/kg	825				
1,4-Dichlorobenzene	ND	ug/kg	575				
3,3'-Dichlorobenzidine	ND	ug/kg	1625				
2,4-Dinitrotoluene	ND	ug/kg	925				
2,6-Dinitrotoluene	ND	ug/kg	700				
Azobenzene	ND	ug/kg	675				
Fluoranthene	ND	ug/kg	725				
4-Chlorophenyl phenyl ether	ND	ug/kg	750				
4-Bromophenyl phenyl ether	ND	ug/kg	700				
Bis(2-chloroisopropyl)ether	ND	ug/kg	500				
Bis(2-chloroethoxy)methane	ND	ug/kg	550				
Hexachlorobutadiene	ND	ug/kg	2000				
Hexachlorocyclopentadiene	ND	ug/kg	1875				
Hexachloroethane	ND	ug/kg	1250				
Isophorone	ND	ug/kg	600				
Naphthalene	ND	ug/kg	550				
Nitrobenzene	ND	ug/kg	475				
n-Nitrosodiphenylamine	ND	ug/kg	625				
n-Nitrosodi-n-propylamine	ND	ug/kg	650				
Bis(2-ethylhexyl)phthalate	ND	ug/kg	2275				
Butyl benzyl phthalate	ND	ug/kg	500				
Di-n-butylphthalate	ND	ug/kg	675				
Di-n-octylphthalate	ND	ug/kg	600				
Diethyl phthalate	ND	ug/kg	1250				
Dimethyl phthalate	ND	ug/kg	1250				
Benzo(a)anthracene	ND	ug/kg	775				
Benzo(a)pyrene	ND	ug/kg	950				
Benzo(b,k)fluoranthene	ND	ug/kg	875				
Chrysene	ND	ug/kg	775				
Acenaphthylene	ND	ug/kg	650				
Anthracene	ND	ug/kg	625				
Benzo(ghi)perylene	ND	ug/kg	1250				
Fluorene	ND	ug/kg	675				
Phenanthrene	ND	ug/kg	650				
Dibenzo(a,h)anthracene	ND	ug/kg	1225				
Indeno(1,2,3-cd)pyrene	ND	ug/kg	1175				
Pyrene	ND	ug/kg	700				
Aniline	ND	ug/kg	2500				
4-Chloroaniline	ND	ug/kg	1000				
1-Methylnaphthalene	ND	ug/kg	1750				
2-Nitroaniline	ND	ug/kg	800				

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: 9207615-03

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS
Semi-volatile Organics by GC/MS continued				1	8270	27-OCT
3-Nitroaniline	ND	ug/kg	1500			
4-Nitroaniline	ND	ug/kg	1450			
Dibenzofuran	ND	ug/kg	500			
a,a-Dimethylphenethylamioe	ND	ug/kg	11250			
Hexachloropropene	ND	ug/kg	5000			
Nitrosodi-n-butylamine	ND	ug/kg	1225			
2-Methylnaphthalene	ND	ug/kg	450			
Tetrachlorobenzene	ND	ug/kg	3100			
Pentachlorobenzene	ND	ug/kg	3200			
a-Naphthalamine	ND	ug/kg	5000			
b-Naphthalamine	ND	ug/kg	2325			
Diphenylamine	ND	ug/kg	1025			
Acetophenetidide	ND	ug/kg	2500			
Dimethoate	ND	ug/kg	5000			
4-Aminobiphenyl	ND	ug/kg	2575			
Pentachloronitrobenzene	ND	ug/kg	975			
Isodrin	ND	ug/kg	950			
p-Dimethylaminoazobenzene	ND	ug/kg	1775			
Chlorobenzilate	ND	ug/kg	4000			
Bis(2-ethylhexyl)adipate	ND	ug/kg	825			
3-Methylcholenthrene	ND	ug/kg	5000			
Ethylmethanesulfonate	ND	ug/kg	3650			
Acetophenone	ND	ug/kg	1175			
Nitrosodipiperidine	ND	ug/kg	5000			
7,12-Dimethylbenz(e)anthracene	ND	ug/kg	6075			
n-Nitrosodimethylamine	ND	ug/kg	10000			
2,4,6-Trichlorophenol	ND	ug/kg	525			
p-Chloro-m-cresol	ND	ug/kg	750			
2-Chlorophenol	ND	ug/kg	825			
2,4-Dichlorophenol	ND	ug/kg	2500			
2,4-Dimethylphenol	ND	ug/kg	575			
2-Nitrophenol	ND	ug/kg	800			
4-Nitrophenol	ND	ug/kg	30000			
2,4-Dinitrophenol	ND	ug/kg	3750			
4,6-Dinitro-o-cresol	ND	ug/kg	4350			
Pentechlorophenol	ND	ug/kg	1750			
Phenol	ND	ug/kg	2075			
Cresol, Total	ND	ug/kg	1800			
2,4,5-Trichlorophenol	ND	ug/kg	675			
2,6-Dichlorophenol	ND	ug/kg	1175			
Benzoic Acid	ND	ug/kg	10000			
Benzyl Alcohol	ND	ug/kg	1450			
SURROGATE RECOVERY						
2-Fluorophenol	58	%				
Phenol-d6	69	%				
Nitrobenzene-d5	93	%				

Comments. * Complete list of References found in Addendum 1

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: 9207615-03

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSI
Semi-volatile Organics by GC/MS continued				1	8270	27-OC
2-Fluorobiphenyl	104	%				
2,4,6-Tribromophenol	80	%				
4-Terphenyl-d14	120	%				
Organochlorine Pesticides				1	8080	27-Oct 02-NOV
Delte-BHC	ND	ug/l	.2			
Lindane	ND	ug/l	.2			
Alphe-BHC	ND	ug/l	.2			
Beta-BHC	ND	ug/l	.2			
Heptechlor	ND	ug/l	.2			
Alachlor	ND	ug/l	.2			
Atrazine	ND	ug/l	.2			
Aldrin	ND	ug/l	.2			
Heptechlor epoxide	ND	ug/l	.2			
Endrin	ND	ug/l	.2			
Endrin eldehyde	ND	ug/l	.2			
Endrin ketone	ND	ug/l	.2			
Dieldrin	ND	ug/l	.2			
4,4'-DDE	ND	ug/l	.2			
4,4'-DDD	ND	ug/l	.2			
4,4'-DDT	ND	ug/l	.2			
Endosulfan I	ND	ug/l	.2			
Endoeulfan II	ND	ug/l	.2			
Endosulfan sulfate	ND	ug/l	.2			
Methoxychlor	ND	ug/l	.2			
Chlordane	ND	ug/l	.2			
Toxaphene	ND	ug/l	.2			
SURROGATE RECOVERY						
Dibutylchlorendate	121	%				

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

Laboratory Sample Number: 9207615-04
J5S-RZ2-GW-401
Date Received: 26-OCT-92

Sample Matrix: WATER
Date Reported: 09-NOV-92

Condition of Sample: Satisfactory
Field Prep: None

Number & Type of Conteiners: 3 Amber Glass,2 Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS
Hydrocerbons, Total	ND	mg/l	.5	1	9073	03-Nov 04-Nov
Volatile Organics by GC/MS				1	8260	05-NOV
Methylene chloride	ND	ug/l	5			
1,1-Dichloroethane	ND	ug/l	1.5			
Chloroform	ND	ug/l	1.5			
Carbon tetrechloride	ND	ug/l	1			
1,2-Dichloropropane	ND	ug/l	3.5			
Dibromochloromethane	ND	ug/l	1			
1,1,2-Trichloroethane	ND	ug/l	1.5			
2-Chloroethylvinyl ether	ND	ug/l	10			
Tetrachloroethene	ND	ug/l	1.5			
Chlorobenzene	ND	ug/l	3.5			
Trichlorofluoromethane	ND	ug/l	5			
1,2-Dichloroethane	ND	ug/l	1.5			
1,1,1-Trichloroethane	ND	ug/l	1			
Bromodichloromethane	ND	ug/l	1			
trans-1,3-Dichloropropene	ND	ug/l	1.5			
cis-1,3-Dichloropropeoe	ND	ug/l	1			
Bromoform	ND	ug/l	1			
1,1,2,2-Tetrachloroethane	ND	ug/l	1			
Benzene	ND	ug/l	1			
Toluene	13	ug/l	1.5			
Ethylbenzene	ND	ug/l	1			
Chloromethane	ND	ug/l	10			
Methyl bromide	ND	ug/l	2			
Vinyl chloride	ND	ug/l	3.5			
Chloroethane	ND	ug/l	2			
1,1-Dichloroethene	ND	ug/l	1.5			
trans-1,2-Dichloroethene	ND	ug/l	1.5			
Trichloroethene	ND	ug/l	1			
1,2-Dichlorobenzene	ND	ug/l	10			
1,3-Dichlorobenzene	ND	ug/l	10			
1,4-Dichlorobeozene	ND	ug/l	10			
Methyl tert butyl ether	ND	ug/l	10			
Xylenes	ND	ug/l	1			
cis 1,2-Dichloroethene	ND	ug/l	1			
Dibromomethane	ND	ug/l	10			

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: 9207615-04

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSI.
Voletile Organics by GC/MS continued				1	8260	05-NO
1,4-Dichloro-2-butane	ND	ug/l	10			
Ethanol	ND	ug/l	25			
Iodomethane	ND	ug/l	10			
1,2,3-Trichloropropane	ND	ug/l	10			
Styrene	ND	ug/l	1			
Dichlorodifluoromethane	ND	ug/l	10			
Acetone	ND	ug/l	10			
Carbon disulfide	ND	ug/l	10			
2-Butanone	ND	ug/l	4.5			
Vinyl acetate	ND	ug/l	10			
4-Methyl-2-pentanone	ND	ug/l	10			
2-Hexanone	ND	ug/l	10			
Ethyl methacrylate	ND	ug/l	10			
Acrolein	ND	ug/l	25			
Acrylonitrile	ND	ug/l	10			
SURROGATE RECOVERY						
1,2-Dichloroethane-d4	107	%				
Toluene-d8	100	%				
4-Bromofluorobenzene	86	%				
Hydrocarbon Scan GC 8100 Modified				1	8100M	29-Oct 03-NO
Mineral Spirits	ND	mg/l	1			
Gasoline	ND	mg/l	1			
Fuel Oil #2	ND	mg/l	1			
Fuel Oil #4	ND	mg/l	1			
Fuel Oil #6	ND	mg/l	1			
Motor Oil	ND	mg/l	1			
Kerosene	ND	mg/l	1			
Diesel Fuel	ND	mg/l	1			
Naphthalene	ND	mg/l	1			

Comments. * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

Laboratory Sample Number: 9207615-05
JSS-RZ2-GW-402
Date Received: 26-OCT-92
Sample Matrix: WATER
Date Reported: 09-NOV-92
Condition of Sample: Satisfactory
Field Prep: None
Number & Type of Conteiners: 1 Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP	ANALYSIS
Volatile Organics by GC/MS				1	8260		06-NOV
Methylene chloride	ND	ug/l	5				
1,1-Dichloroethane	ND	ug/l	1.5				
Chloroform	ND	ug/l	1.5				
Carbon tetrachloride	ND	ug/l	1				
1,2-Dichloropropane	ND	ug/l	3.5				
Dibromochloromethane	ND	ug/l	1				
1,1,2-Trichloroethane	ND	ug/l	1.5				
2-Chloroethylvinyl ether	ND	ug/l	10				
Tetrachloroethene	ND	ug/l	1.5				
Chlorobenzene	ND	ug/l	3.5				
Trichlorofluoromethane	ND	ug/l	5				
1,2-Dichloroethane	ND	ug/l	1.5				
1,1,1-Trichloroethane	ND	ug/l	1				
Bromodichloromethane	ND	ug/l	1				
trans-1,3-Dichloropropene	ND	ug/l	1.5				
cis-1,3-Dichloropropene	ND	ug/l	1				
Bromoform	ND	ug/l	1				
1,1,2,2-Tetrachloroethane	ND	ug/l	1				
Benzene	ND	ug/l	1				
Toluene	13	ug/l	1.5				
Ethylbenzene	ND	ug/l	1				
Chloromethane	ND	ug/l	10				
Methyl bromide	ND	ug/l	2				
Vinyl chloride	ND	ug/l	3.5				
Chloroethane	ND	ug/l	2				
1,1-Dichloroethene	ND	ug/l	1.5				
trans-1,2-Dichloroethene	ND	ug/l	1.5				
Trichloroethene	ND	ug/l	1				
1,2-Dichlorobenzene	ND	ug/l	10				
1,3-Dichlorobenzene	ND	ug/l	10				
1,4-Dichlorobenzene	ND	ug/l	10				
Methyl tert butyl ether	ND	ug/l	10				
Xylenes	ND	ug/l	1				
cis-1,2-Dichloroethene	ND	ug/l	1				
Dibromomethane	ND	ug/l	10				
1,4-Dichloro-2-butane	ND	ug/l	10				
Ethanol	ND	ug/l	25				

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: 9207615-06

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP	ANALYSI
Volatile Organics by GC/MS continued				1	8260		06-NO
1,4-Dichloro-2-butane	ND	ug/l	10				
Ethanol	ND	ug/l	25				
Iodomethane	ND	ug/l	10				
1,2,3-Trichloropropane	ND	ug/l	10				
Styrene	ND	ug/l	1				
Dichlorodifluoromethane	ND	ug/l	10				
Acetone	ND	ug/l	10				
Carbon disulfide	ND	ug/l	10				
2-Butanone	ND	ug/l	4.5				
Vinyl acetate	ND	ug/l	10				
4-Methyl-2-pentanone	ND	ug/l	10				
2-Hexanone	ND	ug/l	10				
Ethyl methacrylate	ND	ug/l	10				
Acrolein	ND	ug/l	25				
Acrylonitrile	ND	ug/l	10				
SURROGATE RECOVERY							
1,2-Dichloroethane-d4	105	%					
Toluene-d8	99	%					
4-Bromofluorobenzene	100	%					

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

Laboratory Sample Number: 9207615-07
J55-RZ1-GW-404
Date Received: 26-OCT-92
Sample Matrix: WATER
Date Reported: 09-NOV-92
Condition of Sample: Satisfactory
Field Prep: None
Number & Type of Containers: 3 Amber Glass,2 Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP	ANALYSIS
Hydrocarbons, Total	ND	mg/l	.5	1	9073	03-Nov	04-Nov
Volatile Organice by GC/MS				1	8260		06-NOV
Methylene chloride	ND	ug/l	5				
1,1-Dichloroethane	ND	ug/l	1.5				
Chloroform	ND	ug/l	1.5				
Carbon tetrachloride	ND	ug/l	1				
1,2-Dichloropropane	ND	ug/l	3.5				
Dibromochloromethane	ND	ug/l	1				
1,1,2-Trichloroethane	ND	ug/l	1.5				
2-Chloroethylvinyl ether	ND	ug/l	10				
Tetrachloroethene	ND	ug/l	1.5				
Chlorobenzene	ND	ug/l	3.5				
Trichlorcfluoromethane	ND	ug/l	5				
1,2-Dichloroethane	ND	ug/l	1.5				
1,1,1-Trichloroethane	ND	ug/l	1				
Bromodichloromethane	ND	ug/l	1				
trans-1,3-Dichloropropene	ND	ug/l	1.5				
cis-1,3-Dichloropropene	ND	ug/l	1				
Bromoform	ND	ug/l	1				
1,1,2,2-Tetrechlcroethane	ND	ug/l	1				
Benzene	ND	ug/l	1				
Toluene	ND	ug/l	1.5				
Ethylbenzene	ND	ug/l	1				
Chloromethane	ND	ug/l	10				
Methyl bromide	ND	ug/l	2				
Vinyl chloride	ND	ug/l	3.5				
Chloroethane	ND	ug/l	2				
1,1-Dichloroethene	ND	ug/l	1.5				
trans-1,2-Dichloroethene	ND	ug/l	1.5				
Trichloroethene	ND	ug/l	1				
1,2-Dichlorobenzene	ND	ug/l	10				
1,3-Dichlorobenzene	ND	ug/l	10				
1,4-Dichlorobenzene	ND	ug/l	10				
Methyl tert butyl ether	ND	ug/l	10				
Xylenee	ND	ug/l	1				
cis-1,2-Dichloroethene	ND	ug/l	1				
Dibromomethane	ND	ug/l	10				

Comments * Complete liet of Referencee found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: 9207615-08

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP	ANALYSIS
Volatile Organics by GC/MS continued				1	8260		30-OCT
Iodomethane	ND	ug/l	10				
1,2,3-Trichloropropane	ND	ug/l	10				
Styrene	ND	ug/l	1				
Dichlorodifluoromethane	ND	ug/l	10				
Acetone	ND	ug/l	10				
Carbon dieulfide	ND	ug/l	10				
2-Butanone	ND	ug/l	4.5				
Vinyl acetate	ND	ug/l	10				
4-Methyl-2-pentanone	ND	ug/l	10				
2-Hexanone	ND	ug/l	10				
Ethyl methacrylate	ND	ug/l	10				
Acrolein	ND	ug/l	25				
Acrylonitrile	ND	ug/l	10				
SURROGATE RECOVERY							
1,2-Dichloroethane-d4	98	%					
Toluene-d8	96	%					
4-Bromofluorobenzene	93	%					

Comments: * Complete liet of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

Laboratory Sample Number: 9207615-07
JSS-RZ1-GW-404
Sample Matrix: WATER
Date Received: 26-OCT-92
Date Reported: 09-NOV-92
Condition of Sample: Satisfactory
Field Prep: None
Number & Type of Containers: 3 Amber Glass,2 Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	
						PREP	ANALYSIS
Hydrocarbons, Total	ND	mg/l	.5	1	9073	03-Nov	04-Nov
Volatile Organics by GC/MS				1	8260		06-NOV
Methylene chloride	ND	ug/l	5				
1,1-Dichloroethane	ND	ug/l	1.5				
Chloroform	ND	ug/l	1.5				
Carbon tetrachloride	ND	ug/l	1				
1,2-Dichloropropane	ND	ug/l	3.5				
Dibromochloromethane	ND	ug/l	1				
1,1,2-Trichloroethane	ND	ug/l	1.5				
2-Chloroethylvinyl ether	ND	ug/l	10				
Tetrachloroethene	ND	ug/l	1.5				
Chlorobenzene	ND	ug/l	3.5				
Trichlorofluoromethane	ND	ug/l	5				
1,2-Dichloroethane	ND	ug/l	1.5				
1,1,1-Trichloroethane	ND	ug/l	1				
Bromodichloromethane	ND	ug/l	1				
trans-1,3-Dichloropropene	ND	ug/l	1.5				
cis-1,3-Dichloropropene	ND	ug/l	1				
Bromoform	ND	ug/l	1				
1,1,2,2-Tetrachloroethane	ND	ug/l	1				
Benzene	ND	ug/l	1				
Toluene	ND	ug/l	1.5				
Ethylbenzene	ND	ug/l	1				
Chloromethane	ND	ug/l	10				
Methyl bromide	ND	ug/l	2				
Vinyl chloride	ND	ug/l	3.5				
Chloroethane	ND	ug/l	2				
1,1-Dichloroethene	ND	ug/l	1.5				
trans-1,2-Dichloroethene	ND	ug/l	1.5				
Trichloroethene	ND	ug/l	1				
1,2-Dichlorobenzene	ND	ug/l	10				
1,3-Dichlorobenzene	ND	ug/l	10				
1,4-Dichlorobenzene	ND	ug/l	10				
Methyl tert butyl ether	ND	ug/l	10				
Xylenes	ND	ug/l	1				
cis-1,2-Dichloroethene	ND	ug/l	1				
Dibromomethane	ND	ug/l	10				

Comments: • Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: 9207615-07

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	
						PREP	ANALYSIS
Volatile Organics by GC/MS continued				1	8260		06-NOV
1,4-Dichloro-2-butane	ND	ug/l	10				
Ethanol	ND	ug/l	25				
Iodomethane	ND	ug/l	10				
1,2,3-Trichloropropane	ND	ug/l	10				
Styrene	ND	ug/l	1				
Dichlorodifluoromethane	ND	ug/l	10				
Acetone	ND	ug/l	10				
Carbon disulfide	ND	ug/l	10				
2-Butanone	ND	ug/l	4.5				
Vinyl acetate	ND	ug/l	10				
4-Methyl-2-pentanone	ND	ug/l	10				
2-Hexanone	ND	ug/l	10				
Ethyl methacrylate	ND	ug/l	10				
Acrolein	ND	ug/l	25				
Acrylonitrile	ND	ug/l	10				
SURROGATE RECOVERY							
1,2-Dichloroethane-d4	105	%					
Toluene-d8	100	%					
4-Bromofluorobenzene	88	%					
Hydrocarbon Scan GC 8100 Modified				1	8100M	29-Oct	03-NOV
Mineral Spirits	ND	mg/l	1				
Gasoline	ND	mg/l	1				
Fuel Oil #2	ND	mg/l	1				
Fuel Oil #4	ND	mg/l	1				
Fuel Oil #6	ND	mg/l	1				
Motor Oil	ND	mg/l	1				
Kerosene	ND	mg/l	1				
Diesel Fuel	ND	mg/l	1				
Naphthalene	ND	mg/l	1				

Comments: • Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006

Laboratory Sample Number: 9207615-08
TRIP BLANK
Sample Matrix: WATER
Date Received: 26-OCT-92
Date Reported: 09-NOV-92
Condition of Sample: Satisfactory
Field Prep: None
Number & Type of Containers: 1 Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	
						PREP	ANALYSIS
Volatile Organics by GC/MS				1	8260		30-OCT
Methylene chloride	ND	ug/l	5				
1,1-Dichloroethane	ND	ug/l	1.5				
Chloroform	ND	ug/l	1.5				
Carbon tetrachloride	ND	ug/l	1				
1,2-Dichloropropane	ND	ug/l	3.5				
Dibromochloromethane	ND	ug/l	1				
1,1,2-Trichloroethane	ND	ug/l	1.5				
2-Chloroethylvinyl ether	ND	ug/l	10				
Tetrachloroethene	ND	ug/l	1.5				
Chlorobenzene	ND	ug/l	3.5				
Trichlorofluoromethane	ND	ug/l	5				
1,2-Dichloroethane	ND	ug/l	1.5				
1,1,1-Trichloroethane	ND	ug/l	1				
Bromodichloromethane	ND	ug/l	1				
trans-1,3-Dichloropropene	ND	ug/l	1.5				
cis-1,3-Dichloropropene	ND	ug/l	1				
Bromoform	ND	ug/l	1				
1,1,2,2-Tetrachloroethane	ND	ug/l	1				
Benzene	ND	ug/l	1				
Toluene	ND	ug/l	1.5				
Ethylbenzene	ND	ug/l	1				
Chloromethane	ND	ug/l	10				
Methyl bromide	ND	ug/l	2				
Vinyl chloride	ND	ug/l	3.5				
Chloroethane	ND	ug/l	2				
1,1-Dichloroethene	ND	ug/l	1.5				
trans-1,2-Dichloroethene	ND	ug/l	1.5				
Trichloroethene	ND	ug/l	1				
1,2-Dichlorobenzene	ND	ug/l	10				
1,3-Dichlorobenzene	ND	ug/l	10				
1,4-Dichlorobenzene	ND	ug/l	10				
Methyl tert butyl ether	ND	ug/l	10				
Xylenes	ND	ug/l	1				
cis-1,2-Dichloroethene	ND	ug/l	1				
Dibromomethane	ND	ug/l	10				
1,4-Dichloro-2-butane	ND	ug/l	10				
Ethanol	ND	ug/l	25				

Comments: • Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: 9207615-08

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	
						PREP	ANALYSIS
Volatile Organics by GC/MS continued				1	8260		30-OCT
Iodomethane	ND	ug/l	10				
1,2,3-Trichloropropane	ND	ug/l	10				
Styrene	ND	ug/l	1				
Dichlorodifluoromethane	ND	ug/l	10				
Acetone	ND	ug/l	10				
Carbon disulfide	ND	ug/l	10				
2-Butanone	ND	ug/l	4.5				
Vinyl acetate	ND	ug/l	10				
4-Methyl-2-pentanone	ND	ug/l	10				
2-Hexanone	ND	ug/l	10				
Ethyl methacrylate	ND	ug/l	10				
Acrolein	ND	ug/l	25				
Acrylonitrile	ND	ug/l	10				
SURROGATE RECOVERY							
1,2-Dichloroethane-d4	98	%					
Toluene-d8	96	%					
4-Bromofluorobenzene	93	%					

Comments: • Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE DUPLICATE ANALYSIS

Laboratory Job Number: 9207615

Parameter	Value 1	Value 2	RPD	Units
Cyanide, Total	DUPLICATE for sample(s) 01-03			
	ND	ND	NC	mg/kg
Hydrocarbons, Total	DUPLICATE for sample(s) 04,06-07			
	3.7	4.1	10	mg/l
Hydrocarbons, Total	DUPLICATE for sample(s) 01-03			
	22400	17600	24	mg/kg
Total Metals	DUPLICATE for sample(s) 01-03			
Mercury, Total	ND	ND	NC	mg/kg
Total Metals	DUPLICATE for sample(s) 01-03			
Antimony, Total	ND	ND	NC	mg/kg
Arsenic, Total	3.1	3.4	9	mg/kg
Barium, Total	18.7	19	2	mg/kg
Beryllium, Total	ND	ND	NC	mg/kg
Cadmium, Total	ND	ND	NC	mg/kg
Chromium, Total	10.4	10.5	1	mg/kg
Copper, Total	8.3	8.4	1	mg/kg
Lead, Total	14.6	16.9	15	mg/kg
Nickel, Total	ND	ND	NC	mg/kg
Selenium, Total	ND	ND	NC	mg/kg
Silver, Total	ND	ND	NC	mg/kg
Thallium, Total	ND	ND	NC	mg/kg
Zinc, Total	25	25.3	1	mg/kg

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE SPIKE ANALYSES

Laboratory Job Number: 9207615

Parameter	% Recovery
Cyanide, Total	SPIKE for sample(s) 01-03
	114
Hydrocarbons, Total	SPIKE for sample(s) 04,06-07
	101
Hydrocarbons, Total	SPIKE for sample(s) 01-03
	101
Total Metals	SPIKE for sample(s) 01-03
Mercury, Total	140
Total Metals	SPIKE for sample(s) 01-03
Arsenic, Total	98
Barium, Total	107
Beryllium, Total	121
Cadmium, Total	110
Chromium, Total	75
Copper, Total	108
Lead, Total	105
Nickel, Total	86
Selenium, Total	100
Silver, Total	80
Thallium, Total	106
Zinc, Total	110

ALPHA ANALYTICAL LABS
ADDENDUM I
REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. 1986.

3. Standard Methods for Examination of Water and Waste Water. APHA-AWWA-WPCF. 17th Edition. 1989.

ALPHA ANALYTICAL LABORATORIES

RELATIVE PERCENT DIFFERENCE

CRITERIA FOR DUPLICATE ANALYSIS

PARAMETER GROUP	WATER	SOIL
Organics:		
Volatile Organics	30 %	30 %
Acid/Base/Neutrals	40 %	40 %
Pesticides/PCB's	40 %	40 %
Inorganics:		
Metals	20 %	30 %
Wet Chemistry	30 %	30 %

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE MS/MSD ANALYSIS

Laboratory Job Number: 9207615

Parameter	MS %	MSD %	RPD
Volatile Organics by GC/MS Spike Recovery MS/MSD for sample(s) 08			
1,1-Dichloroethene	88	90	2
Trichloroethene	83	88	6
Benzene	86	90	5
Toluene	84	88	5
Chlorobenzene	85	90	6
Volatile Organics by GC/MS Spike Recovery MS/MSD for sample(s) 04-05			
1,1-Dichloroethene	91	80	13
Trichloroethene	94	82	14
Benzene	95	88	8
Toluene	108	93	15
Chlorobenzene	93	85	9
Volatile Organics by GC/MS Spike Recovery MS/MSD for sample(s) 06			
1,1-Dichloroethene	92	90	2
Trichloroethene	93	94	1
Benzene	94	96	2
Toluene	75	74	1
Chlorobenzene	90	100	11
Volatile Organics by GC/MS Spike Recovery MS/MSD for sample(s) 07			
1,1-Dichloroethene	91	92	1
Trichloroethene	98	91	7
Benzene	95	90	5
Toluene	96	89	8
Chlorobenzene	98	90	9
Volatile Organics by GC/MS Spike Recovery MS/MSD for sample(s) 01-02			
1,1-Dichloroethene	95	94	1
Trichloroethene	95	98	3
Benzene	96	95	1
Toluene	95	97	2
Chlorobenzene	94	98	4
Volatile Organics by GC/MS Spike Recovery MS/MSD for sample(s) 03			
1,1-Dichloroethene	101	95	6
Trichloroethene	91	81	12
Benzene	92	82	11
Toluene	93	82	13
Chlorobenzene	94	82	14

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE MS/MSD ANALYSIS

Laboratory Job Number: 9207615

Continued

Parameter	MS %	MSD %	RPD
Semi-volatile Organic by GC/MS MS/MSD for sample(e) 01-03			
p-Chloro-m-crseol	88	83	6
2-Chlorophenol	64	58	10
4-Nitrophenol	66	67	2
Pentachlorophenol	87	86	1
Phenol	51	42	19
Acenaphthene	88	91	3
1,2,4-Trichlorobenzene	91	88	3
1,4-Dichlorobenzene	80	74	8
2,4-Dinitrotoluene	95	96	1
N-Nitrosodipropylamine	80	76	5
Pyrene	90	98	9
SURROGATE RECOVERY			
2-Fluorophenol	60	50	18
Phenol-d6	68	58	16
Nitrobenzene-d5	90	80	12
2-Fluorobiphenyl	97	97	0
2,4,6-Tribromophenol	81	84	4
4-Terpheoyl-d14	104	99	5
Organochlorine Pesticides MS/MSD for eample(e) 01-03			
Lindane	102	104	2
Heptachlor	95	99	4
Aldrin	113	113	0
Endrin	116	120	3
Dieldrin	105	108	3
4,4'-DDT	89	93	4
SURROGATE RECOVERY			
Dibutylchlorendate	104	108	4

ALPHA ANALYTICAL LABORATORIES

ACCEPTABLE SURROGATE SPIKE RECOVERY LIMITS

FRACTION	SURROGATE COMPOUND	LOW/MEDIUM WATER	LOW/MEDIUM SOIL/SEDIMENT
VOA	Toluene-d_8	88-110 %	81-117 %
VOA	4-Bromofluorobenzene	86-115 %	74-121 %
VOA	1,2-Dichloroethane-d_4	76-114 %	70-121 %
BNA	Nitrobenzene-d_5	35-114 %	23-120 %
BNA	2-Fluorobiphenyl	43-116 %	30-115 %
BNA	p-Terphenyl-d_{14}	33-141 %	18-137 %
BNA	Phenol-d_5	10-94 %	24-113 %
BNA	2-Fluorophenol	10-100 %	25-121 %
BNA	2,4,6-Tribromophenol	10-123 %	19-122 %
Pest.	Dibutylchlorendate	60-150 % *	60-150 % *

* Advisory Limit - No action required

CHAIN OF CUSTODY RECORD

Rizzo Associates, Inc.
235 West Central Street
Natick, MA 01760
(508) 651-3401
(508) 651-1189 (FAX)

Rizzo Project Number: 2428-01
Rizzo Project Name: Sutomin / Somerville
Samplers (signatures): Cheryl A Place

Lab: Alpha
Lab ID #:
Send report to: CAP
Turnaround Time: 2 weeks

Rizzo Sample Number	Sample Depth	Sample Location	Sample Collected Date	Sample Collected Time	Container #	Container Type	Container Preservative	Sample Matrix	Requested Analyses
JSS R22 GW-401	—	R122	10/26/92	10:10	2	VOA	HCl	H_2O	8260
					2	glass	HCl		TPH
↓		↓	↓	↓	1	glass	None	↓	Pet scan (mineral spirits)
JSS-R22GW-402	—	R122	10/26/92	↓	2	VOA	HCl	↓	8260
JSS R23GW-403	—	R123	10/26/92	10:15	2	VOA	HCl		8260
↓		↓	↓	↓	2	glass	HCl	↓	TPH
JSS R21GW-401	—	R121	10/26/92	1:15	2	VOA	HCl		8260
					2	glass	HCl		TPH
↓		↓	↓	↓	1	glass	None		Pet scan (mineral spirits)
Trip blank	—	—	10/26/92	—	1	VOA	HCl	↓	8260

Relinquished by: Cheryl A Place
Received by: Scott Hunt
Date: 10/26/92
Time: 2:50

Method of Shipment: Pick up.

ALPHA ANALYTICAL LABORATORIES

ACCEPTABLE MATRIX SPIKE RECOVERY LIMITS

FOR INORGANICS

PARAMETER GROUP	WATER	SOIL
Metals	75-125 %	60-140 %
Wet Chemistry	70-130 %	N/A

ALPHA ANALYTICAL LABORATORIES

ACCEPTABLE MATRIX SPIKE RECOVERY LIMITS

FOR ORGANICS

FRACTION	MATRIX SPIKE COMPOUND	WATER	SOIL/SEDIMENT
VOA	1,1-Dichloroethene	61-145 %	59-172 %
VOA	Trichloroethene	71-120 %	62-137 %
VOA	Chlorobenzene	75-130 %	60-133 %
VOA	Toluene	76-125 %	59-139 %
VOA	Benzene	76-127 %	66-142 %
BN	1,2,4-Trichlorobenzene	39-98 %	38-107 %
BN	Acenaphthene	46-118 %	31-137 %
BN	2,4-Dinitrotoluene	39-139 %	39-139 %
BN	Di-n-butyl phthalate	11-117 %	29-135 %
BN	Pyrene	26-127 %	35-142 %
BN	N-nitros-di-n-propylamine	41-116 %	41-126 %
BN	1,4-Dichlorobenzene	36-97 %	28-104 %
Acid	Pentachlorophenol	14-176 %	14-176 %
Acid	Phenol	12-89 %	26-90 %
Acid	2-Chlorophenol	27-123 %	25-102 %
Acid	4-Chloro-3-methylphenol	23-97 %	26-103 %
Acid	4-Nitrophenol	10-80 %	11-114 %
Pest.	Lindane	56-123 %	46-127 %
Pest.	Heptachlor	40-131 %	35-130 %
Pest.	Aldrin	40-120 %	34-132 %
Pest.	Dieldrin	52-126 %	31-134 %
Pest.	Endrin	56-121 %	42-139 %
Pest.	4,4'-DDT	38-127 %	23-134 %

CHAIN OF CUSTODY RECORD

Rizzo Associates, Inc.
235 West Central Street
Natick, MA 01760
(508) 651-3401
(508) 651-1189 (FAX)

Rizzo Project Number: 2428-01
Rizzo Project Name: Solomon/Somerville
Samplers (signatures): Cheryl A. Place

Lab: Alpha
Lab ID #:
Send report to: CAP
Turnaround Time: 3 weeks

Rizzo Sample Number	Sample Depth	Sample Location	Sample Collected Date	Sample Collected Time	Container #	Container Type	Container Preservative	Sample Matrix	Requested Analyses
JSS RZ3-SS6'301	6-8'	RIZ-3	10/24/92	12:00	1	VOA	None	Soil	VOAs · 8260
					4	glass	none	Soil	TPH, Total pp 13 metals + barium + total cyanide ABNs plus pesticides + PCBs.
JSS-SB1-SS-302	0-1.5'	SB 1	10/24/92	21:30	1	VOA	None	Soil	8260
					4	glass	↓	↓	TPH, total pp. 13 metals plus barium, total cyanide, ABNs plus pesticides + PCBs
JSS-SB1-SS-303	0-1.5'	SB 2	10/24/92	22:00	1	VOA	None	Soil	8260
					4	glass	↓	↓	TPH, total pp 13 metals plus barium, total cyanide, ABNs including PCBs + pesticide

Trip Blank – – 10/24/92 – 1 VOA HCl H_2O 8260

Relinquished by: Cheryl A. Place
Received by:
Date: 10/26/92
Time: 2:50

Method of Shipment:

WHITE - ANALYTICAL LABORATORY • YELLOW - QC OFFICER • PINK - CHAIN-OF-CUSTODY NOTEBOOK • GOLD - PROJECT FILE

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

CERTIFICATE OF ANALYSIS

Client: Rizzo Associates
Address: 235 West Central Street
Natick, MA 01760
Attn: Rick Hughto
Project Number: 2428-02
Site: Solomon

Laboratory Job Number: L930S398
Invoice Number: 5427S
Date Received: 07-JUL-93
Date Reported: 21-JUL-93
Delivery Method: Alpha

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L930S398-01	SS-STOCKPILE -201	Somerville
L930S398-02	SS-L1-202	Somerville
L930S398-03	SS-L2-203	Somerville
L930S398-04	SS-L3-204	Somerville
L930S398-05	SS-L4-205	Somerville
L930S398-06	SS-L7-206	Somerville
L930S398-07	SS-L8-207	Somerville
L930S398-08	SS-L11-208	Somerville
L930S398-09	SS-L12-209	Somerville
L930S398-10	TRIP BLANK	Somerville

Authorized by:

Scott McLean - Laboratory Director

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number: L9305398-01
SS-STOCKPILE -201
Sample Matrix: SOIL
Condition of Sample: Satisfactory
Number & Type of Containers: 4 Glass,2 Vial

Date Received: 07-JUL-93
Date Reported: 21-JUL-93
Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP	DATES ANALYSIS
Solids, Total	96.	%	0.10	3	2540B		09-Jul
pH	6.2	SU		1	9040		08-Jul
Hydrocarbons, Total	780	mg/kg	40.	1	418.1	12-Jul	13-Jul
Flash Point	>200	F	70	1	1010		15-Jul
Cyanide, Reactive	ND	mg/kg	0.25	1	7.3		14-Jul
Sulfide, Reactive	ND	mg/kg	0.20	1	7.3		14-Jul
TCLP Extraction				1	1311	08-JUL	
Arsenic, TCLP	ND	mg/l	1.0	1	6010	09-Jul	09-Jul
Barium, TCLP	0.50	mg/l	0.50	1	6010	09-Jul	09-Jul
Cadmium, TCLP	ND	mg/l	0.10	1	6010	09-Jul	09-Jul
Chromium, TCLP	ND	mg/l	0.20	1	6010	09-Jul	09-Jul
Lead, TCLP	ND	mg/l	0.50	1	6010	09-Jul	09-Jul
Mercury, TCLP	ND	mg/l	0.005	1	7470/7471	13-Jul	13-Jul
Selenium, TCLP	ND	mg/l	0.50	1	6010	09-Jul	09-Jul
Silver, TCLP	ND	mg/l	0.10	1	6010	09-Jul	09-Jul

Comments * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9305398-01

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP	DATES ANALYSIS
Volatile Organics by GC/MS				1	8260		16-JUL
Methylene chloride	ND	ug/kg	25.				
1,1-Dichloroethane	ND	ug/kg	7.5				
Chloroform	ND	ug/kg	7.5				
Carbon tetrachloride	ND	ug/kg	5.0				
1,2-Dichloropropane	ND	ug/kg	18.				
Dibromochloromethane	ND	ug/kg	5.0				
1,1,2-Trichloroethane	ND	ug/kg	7.5				
2-Chloroethylvinyl ether	ND	ug/kg	50.				
Tetrachloroethene	ND	ug/kg	7.5				
Chlorobenzene	ND	ug/kg	18.				
Trichlorofluoromethane	ND	ug/kg	25.				
1,2-Dichloroethane	ND	ug/kg	7.5				
1,1,1-Trichloroethane	ND	ug/kg	5.0				
Bromodichloromethane	ND	ug/kg	5.0				
trans-1,3-Dichloropropene	ND	ug/kg	7.5				
cis-1,3-Dichloropropene	ND	ug/kg	5.0				
Bromoform	ND	ug/kg	5 0				
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0				
Benzene	ND	ug/kg	5.0				
Toluene	ND	ug/kg	7.5				
Ethylbenzene	ND	ug/kg	5 0				
Chloromethane	ND	ug/kg	50.				
Bromomethane	ND	ug/kg	10.				
Vinyl chloride	ND	ug/kg	18.				
Chloroethane	ND	ug/kg	10.				
1,1-Dichloroethene	ND	ug/kg	7.5				
trans-1,2-Dichloroethene	ND	ug/kg	7.5				
Trichloroethene	ND	ug/kg	5.0				
1,2-Dichlorobenzene	ND	ug/kg	50.				
1,3-Dichlorobenzene	ND	ug/kg	50.				
1,4-Dichlorobenzene	ND	ug/kg	50.				
Methyl tert butyl ether	ND	ug/kg	50.				
Xylenes	ND	ug/kg	5.0				
cis-1,2-Dichloroethene	ND	ug/kg	5.0				
Dibromomethane	ND	ug/kg	50.				
1,4-Dichlorobutane	ND	ug/kg	50.				
Iodomethane	ND	ug/kg	50.				
1,2,3-Trichloropropane	ND	ug/kg	50.				
Styrene	ND	ug/kg	5.0				
Dichlorodifluoromethane	ND	ug/kg	50.				
Acetone	ND	ug/kg	50.				
Carbon disulfide	ND	ug/kg	50.				
2-Butanone	ND	ug/kg	23.				
Vinyl acetate	ND	ug/kg	50.				
4-Methyl-2-pentanone	ND	ug/kg	50.				
2-Hexanone	ND	ug/kg	50.				
Ethyl methacrylate	ND	ug/kg	50.				
Acrolein	ND	ug/kg	130				

Comments * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9305398-01

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP	DATES ANALYSIS
Volatile Organics by GC/MS continued				1	8260		16-JUL
Acrylonitrile	ND	ug/kg	50.				
SURROGATE RECOVERY							
1,2-Dichloroethane-d4	76.0	%					
Toluene-d8	84.0	%					
4-Bromofluorobenzene	118.	%					
Polychlorinated Biphenyls				1	8080	08-Jul	10-JUL
Arochlor 1221	ND	ug/kg	250				
Arochlor 1232	ND	ug/kg	250				
Arochlor 1242/PCB 1016	ND	ug/kg	250				
Arochlor 1248	ND	ug/kg	250				
Arochlor 1254	ND	ug/kg	250				
Arochlor 1260	ND	ug/kg	250				
Arochlor 1262	ND	ug/kg	250				
Arochlor 1268	ND	ug/kg	250				
SURROGATE RECOVERY							
2,4,5,6-Tetrachloro-m-xylene	113.	%					
Decachlorobiphenyl	51.0	%					

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9305398-01

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP	DATES ANALYSIS
Organochlorine Pesticides				1	8080	08-Jul	10-JUL
Delta-BHC	ND	ug/kg	50.				
Lindane	ND	ug/kg	50.				
Alpha-BHC	ND	ug/kg	50.				
Beta-BHC	ND	ug/kg	50.				
Heptachlor	ND	ug/kg	50.				
Aldrin	ND	ug/kg	50.				
Heptachlor epoxide	ND	ug/kg	50.				
Endrin	ND	ug/kg	50.				
Endrin aldehyde	ND	ug/kg	50.				
Endrin ketone	ND	ug/kg	50.				
Dieldrin	ND	ug/kg	50.				
4,4'-DDE	ND	ug/kg	50.				
4,4'-DDD	ND	ug/kg	50.				
4,4'-DDT	ND	ug/kg	50.				
Endosulfan I	ND	ug/kg	50.				
Endosulfan II	ND	ug/kg	50.				
Endosulfan sulfate	ND	ug/kg	50.				
Methoxychlor	ND	ug/kg	50.				
Chlordane	ND	ug/kg	50.				
Toxaphene	ND	ug/kg	50.				
SURROGATE RECOVERY							
2,4,5,6-Tetrachloro-m-xylene	113.	%					
Decachlorobiphenyl	51.0	%					
TCLP Volatile Organics				1	8240		17-JUL
Benzene	ND	mg/l	0.005				
Carbon tetrachloride	ND	mg/l	0.005				
Chlorobenzene	ND	mg/l	0.018				
Chloroform	ND	mg/l	0.0075				
1,4-Dichlorobenzene	ND	mg/l	0.05				
1,2-Dichloroethane	ND	mg/l	0 0075				
1,1-Dichloroethene	ND	mg/l	0.0075				
Tetrachloroethene	ND	mg/l	0 0075				
Trichloroethene	ND	mg/l	0.005				
Vinyl chloride	ND	mg/l	0 018				
Methyl ethyl ketone	ND	mg/l	0 05				
SURROGATE RECOVERY							
1,2-Dichloroethane-d4	99.0	%					
Toluene-d8	101.	%					
4-Bromofluorobenzene	98.0	%					
TCLP Extraction				1	1311	14-JUL	

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9305398-01

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP	ANALYSIS
TCLP Semi-Volatile Organics				1	8270	12-Jul	13-JUL
Cresol, Total	ND	mg/l	0.029				
2,4-Dinitrotoluene	ND	mg/l	0.015				
Hexachlorobenzene	ND	mg/l	0.011				
Hexachloro-1,3-butadiene	ND	mg/l	0.032				
Hexachloroethane	ND	mg/l	0.020				
Nitrobenzene	ND	mg/l	0.0076				
Pentachlorophenol	ND	mg/l	0.0368				
2,4,5-Trichlorophenol	ND	mg/l	0.019				
2,4,6-Trichlorophenol	ND	mg/l	0.011				
Pyridine	ND	mg/l	0.10				
SURROGATE RECOVERY							
2-Fluorophenol	71.0	%					
Phenol-d6	65.0	%					
Nitrobenzene-d5	78.0	%					
2-Fluorobiphenyl	89.0	%					
2,4,6-Tribromophenol	120.	%					
4-Terphenyl-d14	111.	%					
TCLP Extraction				1	1311	08-JUL	
TCLP Pesticides				1	8080	12-Jul	13-JUL
Chlordane	ND	mg/l	0.01				
Endrin	ND	mg/l	0.001				
Heptachlor	ND	mg/l	0.001				
Heptachlor epoxide	ND	mg/l	0.001				
Lindane	ND	mg/l	0.001				
Methoxychlor	ND	mg/l	0.002				
Toxaphene	ND	mg/l	0.01				
SURROGATE RECOVERY							
2,4,5,6-Tetrachloro-m-xylene	92.0	%					
Decachlorobiphenyl	40.0	%					
TCLP Extraction				1	1311	08-JUL	
TCLP Herbicides				1	8150	09-Jul	13-JUL
2,4-D	ND	mg/l	0.005				
2,4,5-TP	ND	mg/l	0.005				
TCLP Extraction				1	1311	08-JUL	

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number: L9305398-02
SS-L1-202
Date Received: 07-JUL-93

Sample Matrix: SOIL
Date Reported: 21-JUL-93

Condition of Sample: Satisfactory
Field Prep: None

Number & Type of Containers: 1 Glass

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP	ANALYSIS
Solids, Total	89.	%	0.10	3	2540B		12-Jul
Hydrocarbons, Total	52.	mg/kg	40.	1	418.1	12-Jul	13-Jul

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number: L9305398-03
SS-L2-203
Date Received: 07-JUL-93

Sample Matrix: SOIL
Date Reported: 21-JUL-93

Condition of Sample: Satisfactory
Field Prep: None

Number & Type of Containers: 1 Glass

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP	ANALYSIS
Solids, Total	92.	%	0.10	3	2540B		13-Jul
Hydrocarbons, Total	61.	mg/kg	40.	1	418.1	12-Jul	13-Jul

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number: L9305398-04
SS-L3-204
Date Received: 07-JUL-93

Sample Matrix: SOIL
Date Reported: 21-JUL-93

Condition of Sample: Satisfactory
Field Prep: None

Number & Type of Containers: 2 Glass,1 Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP	ANALYSIS
Solids, Total	94	%	0.10	3	2540B		09-Jul
Hydrocarbons, Total	1900	mg/kg	40.	1	418.1	12-Jul	13-Jul
Total Metals				1	3005/3050		
Antimony, Total	ND	mg/kg	100	1	6010	08-Jul	12-Jul
Arsenic, Total	3.7	mg/kg	1.0	1	7060	08-Jul	09-Jul
Beryllium, Total	ND	mg/kg	2.0	1	6010	08-Jul	12-Jul
Cadmium, Total	2.1	mg/kg	2.0	1	6010	08-Jul	12-Jul
Chromium, Total	15.	mg/kg	4.0	1	6010	08-Jul	12-Jul
Copper, Total	50.	mg/kg	4.0	1	6010	08-Jul	12-Jul
Lead, Total	150	mg/kg	10.	1	6010	08-Jul	12-Jul
Mercury, Total	ND	mg/kg	0.25	1	7470/7471	09-Jul	12-Jul
Nickel, Total	21.	mg/kg	10.	1	6010	08-Jul	12-Jul
Selenium, Total	ND	mg/kg	1.0	1	7740	08-Jul	09-Jul
Silver, Total	ND	mg/kg	2.0	1	6010	08-Jul	12-Jul
Thallium, Total	ND	mg/kg	1.0	1	7841	08-Jul	09-Jul
Zinc, Total	82.	mg/kg	2.0	1	6010	08-Jul	12-Jul

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboretory Sample Number: L9305398-04

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	
						PREP	ANALYSIS
Voletile Organics by GC/MS				1	8260		16-JUL
Methylene chloride	ND	ug/kg	25.				
1,1-Dichloroethane	ND	ug/kg	7.5				
Chloroform	ND	ug/kg	7.5				
Carbon tetrachloride	ND	ug/kg	5.0				
1,2-Dichloropropane	ND	ug/kg	18.				
Dibromochloromethane	ND	ug/kg	5.0				
1,1,2-Trichloroethane	ND	ug/kg	7.5				
2-Chloroethylvinyl ether	ND	ug/kg	50.				
Tetrechloroethene	ND	ug/kg	7.5				
Chlorobenzene	ND	ug/kg	18.				
Trichlorofluoromethane	ND	ug/kg	25.				
1,2-Dichloroethane	ND	ug/kg	7.5				
1,1,1-Trichloroethane	ND	ug/kg	5.0				
Bromodichloromethane	ND	ug/kg	5.0				
trans-1,3-Dichloropropene	ND	ug/kg	7.5				
cis-1,3-Dichloropropene	ND	ug/kg	5.0				
Bromoform	ND	ug/kg	5.0				
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0				
Benzene	ND	ug/kg	5.0				
Toluene	ND	ug/kg	7.5				
Ethylbenzene	ND	ug/kg	5.0				
Chloromethane	ND	ug/kg	50.				
Bromomethane	ND	ug/kg	10.				
Vinyl chloride	ND	ug/kg	18.				
Chloroethane	ND	ug/kg	10.				
1,1-Dichloroethene	ND	ug/kg	7.5				
trans-1,2-Dichloroethene	ND	ug/kg	7.5				
Trichloroethene	ND	ug/kg	5.0				
1,2-Dichlorobenzene	ND	ug/kg	50.				
1,3-Dichlorobenzene	ND	ug/kg	50.				
1,4-Dichlorobenzene	ND	ug/kg	50.				
Methyl tert butyl ether	ND	ug/kg	50.				
Xylenes	ND	ug/kg	5.0				
cie-1,2-Dichloroethene	ND	ug/kg	5.0				
Dibromomethane	ND	ug/kg	50.				
1,4-Dichlorobutane	ND	ug/kg	50.				
Iodomethane	ND	ug/kg	50.				
1,2,3-Trichloropropane	ND	ug/kg	50.				
Styrene	ND	ug/kg	5.0				
Dichlorodifluoromethane	ND	ug/kg	50.				
Acetone	ND	ug/kg	50.				
Cerbon dieulfide	ND	ug/kg	50.				
2-Butanone	ND	ug/kg	23.				
Vinyl ecetete	ND	ug/kg	50.				
4-Methyl-2-pentenone	ND	ug/kg	50.				
2-Hexanone	ND	ug/kg	50.				
Ethyl methecrylete	ND	ug/kg	50.				
Acrolein	ND	ug/kg	130				

Comments. * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9305398-04

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	
						PREP	ANALYSIS
Voletile Organics by GC/MS continued				1	8260		16-JUL
Acrylonitrile	ND	ug/kg	50				
SURROGATE RECOVERY							
1,2-Dichloroethane-d4	76.0	%					
Toluene-d8	79.0	%					
4-Bromofluorobenzene	210.	%					
Semi-volatile Organics by GC/MS				1	8270	08-Jul	16-JUL
Acenephthene	ND	ug/kg	700				
Benzidine	ND	ug/kg	6000				
1,2,4-Trichlorobenzene	ND	ug/kg	900				
Hexachlorobenzene	ND	ug/kg	700				
Bie(2-chloroethyl)ether	ND	ug/kg	750				
2-Chloronaphthelene	ND	ug/kg	750				
1,2-Dichlorobenzene	ND	ug/kg	700				
1,3-Dichlorobenzene	ND	ug/kg	800				
1,4-Dichlorobenzene	ND	ug/kg	600				
3,3'-Dichlorobenzidine	ND	ug/kg	1600				
2,4-Dinitrotoluene	ND	ug/kg	900				
2,6-Dinitrotoluene	ND	ug/kg	700				
Azobenzene	ND	ug/kg	700				
Fluoranthene	5100	ug/kg	700				
4-Chlorophenyl phenyl ether	ND	ug/kg	750				
4-Bromophenyl phenyl ether	ND	ug/kg	700				
Bis(2-chloroisopropyl)ether	ND	ug/kg	500				
Bis(2-chloroethoxy)methane	ND	ug/kg	550				
Hexachlorobutediene	ND	ug/kg	2000				
Hexachlorocyclopentediene	ND	ug/kg	1900				
Hexachloroethane	ND	ug/kg	1300				
Isophorone	ND	ug/kg	600				
Nephthelene	ND	ug/kg	550				
Nitrobenzene	ND	ug/kg	480				
n-Nitrosodiphenylamine	ND	ug/kg	600				
n-Nitrosodi-n-propylamine	1200	ug/kg	650				
Bis(2-ethylhexyl)phthalete	5900	ug/kg	2300				
Butyl benzyl phthalete	ND	ug/kg	500				
Di-n-butylphthelete	ND	ug/kg	700				
Di-n-octylphthelete	900	ug/kg	600				
Diethyl phthalete	ND	ug/kg	1300				
Dimethyl phthelate	ND	ug/kg	1300				
Benzo(a)anthrecene	2100	ug/kg	800				
Benzo(e)pyrene	1900	ug/kg	950				
Benzo(b,k)fluoranthene	3700	ug/kg	900				
Chrysene	2300	ug/kg	800				
Acenaphthylene	ND	ug/kg	650				
Anthrecene	ND	ug/kg	600				

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboretory Sample Number: L9305398-04

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	
						PREP	ANALYSIS
Semi-volatile Organics by GC/MS continued				1	8270	08-Jul	16-JUL
Benzo(ghi)perylene	1400	ug/kg	1300				
Fluorene	ND	ug/kg	700				
Phenanthrene	2600	ug/kg	650				
Dibenzo(e,h)anthrecene	ND	ug/kg	1200				
Indeno(1,2,3-cd)pyrene	1400	ug/kg	1200				
Pyrene	4000	ug/kg	700				
Aniline	ND	ug/kg	2500				
4-Chloroaniline	ND	ug/kg	1000				
1-Methylnaphthalene	ND	ug/kg	1800				
2-Nitroaniline	ND	ug/kg	800				
3-Nitroaniline	ND	ug/kg	1500				
4-Nitroeniline	ND	ug/kg	1500				
Dibenzofuran	ND	ug/kg	500				
a,a Dimethylphenethylamine	ND	ug/kg	12000				
Hexachloropropene	ND	ug/kg	5000				
Nitrosodi-n-butylamine	ND	ug/kg	1200				
2-Methylnephthelene	ND	ug/kg	450				
Tetrachlorobenzene	ND	ug/kg	3100				
Pentechlorobenzene	ND	ug/kg	3200				
a-Nephthelamine	ND	ug/kg	5000				
b-Nephthelamine	ND	ug/kg	2300				
Diphenylamine	ND	ug/kg	1000				
Acetophenetidide	ND	ug/kg	2500				
Dimethoate	ND	ug/kg	5000				
4-Aminobiphenyl	ND	ug/kg	2600				
Pentechloronitrobenzene	ND	ug/kg	1000				
Isodrin	ND	ug/kg	950				
p-Dimethylaminoazobenzene	ND	ug/kg	1800				
Chlorobenzilate	ND	ug/kg	4000				
Bis(2-ethylhexyl)edipete	ND	ug/kg	800				
3-Methylcholanthrane	ND	ug/kg	5000				
Ethylmethanesulfonate	ND	ug/kg	3700				
Acetophenone	ND	ug/kg	1200				
Nitrosodipiperidine	ND	ug/kg	5000				
7,12-Dimethylbenz(a)anthracene	ND	ug/kg	6000				
n-Nitrosodimethylamine	ND	ug/kg	10000				
2,4,6-Trichlorophenol	ND	ug/kg	500				
p-Chloro-m-cresol	ND	ug/kg	750				
2-Chlorophenol	ND	ug/kg	800				
2,4-Dichlorophenol	ND	ug/kg	2500				
2,4-Dimethylphenol	ND	ug/kg	600				
2-Nitrophenol	ND	ug/kg	800				
4-Nitrophenol	ND	ug/kg	3000				
2,4-Dinitrophenol	ND	ug/kg	3800				
4,6-Dinitro-o-cresol	ND	ug/kg	4400				
Pentechlorophenol	ND	ug/kg	1800				
Phenol	ND	ug/kg	2100				
Cresol, Total	ND	ug/kg	1800				

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboretory Sample Number: L9305398-04

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	
						PREP	ANALYSIS
Semi-voletile Organics by GC/MS continued				1	8270	08-Jul	16-JUL
2,4,5-Trichlorophenol	ND	ug/kg	700				
2,6-Dichlorophenol	ND	ug/kg	1200				
Benzoic Acid	ND	ug/kg	10000				
Benzyl Alcohol	ND	ug/kg	1500				
SURROGATE RECOVERY							
2-Fluorophenol	83.0	%					
Phenol-d6	85.0	%					
Nitrobenzene-d5	105.	%					
2-Fluorobiphenyl	105.	%					
2,4,6-Tribromophenol	98.0	%					
4-Terphenyl-d14	120.	%					
Polychlorineted Biphenyle				1	8080	08-Jul	10-JUL
Arochlor 1221	ND	ug/kg	250				
Arochlor 1232	ND	ug/kg	250				
Arochlor 1242/PCB 1016	ND	ug/kg	250				
Arochlor 1248	ND	ug/kg	250				
Arochlor 1254	ND	ug/kg	250				
Arochlor 1260	ND	ug/kg	250				
Arochlor 1262	ND	ug/kg	250				
Arochlor 1268	ND	ug/kg	250				
SURROGATE RECOVERY							
2,4,5,6-Tetrechloro-m-xylene	123.	%					
Decechlorobiphenyl	66.0	%					

Comments: * Complete list of References found in Addendum I

Laboratory Sample Number: L9305398-04

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	
						PREP	ANALYSIS
Organochlorine Pesticides				1	8080	08-Jul	10-JUL
Delta-BHC	ND	ug/kg	50.				
Lindane	ND	ug/kg	50.				
Alpha-BHC	ND	ug/kg	50.				
Beta-BHC	ND	ug/kg	50.				
Heptachlor	ND	ug/kg	50.				
Aldrin	ND	ug/kg	50.				
Heptachlor epoxide	ND	ug/kg	50.				
Endrin	ND	ug/kg	50.				
Endrin aldehyde	ND	ug/kg	50.				
Endrin ketone	ND	ug/kg	50.				
Dieldrin	ND	ug/kg	50.				
4,4'-DDE	ND	ug/kg	50.				
4,4'-DDD	ND	ug/kg	50.				
4,4'-DDT	ND	ug/kg	50.				
Endosulfan I	ND	ug/kg	50.				
Endosulfan II	ND	ug/kg	50.				
Endosulfan sulfate	ND	ug/kg	50.				
Methoxychlor	ND	ug/kg	50.				
Chlordane	ND	ug/kg	50.				
Toxaphene	ND	ug/kg	50.				
SURROGATE RECOVERY							
2,4,5,6-Tetrachloro-m-xylene	128.	%					
Decachlorobiphenyl	66.0	%					

Comments: * Complete list of References found in Addendum I

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number: L9305398-05
SS-L4-205
Sample Matrix: SOIL
Date Received: 07-JUL-93
Date Reported: 21-JUL-93
Condition of Sample: Satisfactory
Field Prep: None
Number & Type of Containers: 2 Glass,1 Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	
						PREP	ANALYSIS
Solids, Total	89.	%	0.10	3	2540B		09-Jul
Hydrocarbons, Total	440	mg/kg	40.	1	418.1	12-Jul	13-Jul
Total Metals				1	3005/3050		
Antimony, Total	ND	mg/kg	100	1	6010	08-Jul	12-Jul
Arsenic, Total	2.9	mg/kg	1.0	1	7060	08-Jul	09-Jul
Beryllium, Total	ND	mg/kg	2.0	1	6010	08-Jul	12-Jul
Cadmium, Total	ND	mg/kg	2.0	1	6010	08-Jul	12-Jul
Chromium, Total	8.9	mg/kg	4.0	1	6010	08-Jul	12-Jul
Copper, Total	8.9	mg/kg	4.0	1	6010	08-Jul	12-Jul
Lead, Total	13.	mg/kg	10.	1	6010	08-Jul	12-Jul
Mercury, Total	ND	mg/kg	0.25	1	7470/7471	09-Jul	12-Jul
Nickel, Total	ND	mg/kg	10.	1	6010	08-Jul	12-Jul
Selenium, Total	ND	mg/kg	1.0	1	7740	08-Jul	09-Jul
Silver, Total	ND	mg/kg	2.0	1	6010	08-Jul	12-Jul
Thallium, Total	ND	mg/kg	1.0	1	7841	08-Jul	09-Jul
Zinc, Total	27.	mg/kg	2.0	1	6010	08-Jul	12-Jul

Comments: * Complete list of References found in Addendum I

Laboratory Sample Number: L9305398-05

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	
						PREP	ANALYSIS
Volatile Organics by GC/MS				1	8260		16-JUL
Methylene chloride	ND	ug/kg	25.				
1,1-Dichloroethane	ND	ug/kg	7.5				
Chloroform	ND	ug/kg	7.5				
Carbon tetrachloride	ND	ug/kg	5.0				
1,2-Dichloropropane	ND	ug/kg	18.				
Dibromochloromethane	ND	ug/kg	5.0				
1,1,2-Trichloroethane	ND	ug/kg	7.5				
2-Chloroethylvinyl ether	ND	ug/kg	50.				
Tetrachloroethene	ND	ug/kg	7.5				
Chlorobenzene	ND	ug/kg	18.				
Trichlorofluoromethane	ND	ug/kg	25.				
1,2-Dichloroethane	ND	ug/kg	7.5				
1,1,1-Trichloroethane	ND	ug/kg	5.0				
Bromodichloromethane	ND	ug/kg	5.0				
trans-1,3-Dichloropropene	ND	ug/kg	7.5				
cis-1,3-Dichloropropene	ND	ug/kg	5.0				
Bromoform	ND	ug/kg	5.0				
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0				
Benzene	ND	ug/kg	5.0				
Toluene	ND	ug/kg	7.5				
Ethylbenzene	ND	ug/kg	5.0				
Chloromethane	ND	ug/kg	50.				
Bromomethane	ND	ug/kg	10.				
Vinyl chloride	ND	ug/kg	18.				
Chloroethane	ND	ug/kg	10.				
1,1-Dichloroethene	ND	ug/kg	7.5				
trans-1,2-Dichloroethene	ND	ug/kg	7.5				
Trichloroethene	ND	ug/kg	5.0				
1,2-Dichlorobenzene	ND	ug/kg	50.				
1,3-Dichlorobenzene	ND	ug/kg	50.				
1,4-Dichlorobenzene	ND	ug/kg	50.				
Methyl tert butyl ether	ND	ug/kg	50.				
Xylenes	ND	ug/kg	5.0				
cis-1,2-Dichloroethene	ND	ug/kg	5.0				
Dibromomethane	ND	ug/kg	50.				
1,4-Dichlorobutane	ND	ug/kg	50.				
Iodomethane	ND	ug/kg	50.				
1,2,3-Trichloropropane	ND	ug/kg	50.				
Styrene	ND	ug/kg	5.0				
Dichlorodifluoromethane	ND	ug/kg	50.				
Acetone	ND	ug/kg	50.				
Carbon disulfide	ND	ug/kg	50.				
2-Butanone	ND	ug/kg	23.				
Vinyl acetate	ND	ug/kg	50.				
4-Methyl-2-pentanone	ND	ug/kg	50.				
2-Hexanone	ND	ug/kg	50.				
Ethyl methacrylate	ND	ug/kg	50.				
Acrolein	ND	ug/kg	130				

Comments: * Complete list of References found in Addendum I

Laboratory Sample Number: L9305398-05

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	
						PREP	ANALYSIS
Volatile Organics by GC/MS continued				1	8260		16-JUL
Acrylonitrile	ND	ug/kg	50.				
SURROGATE RECOVERY							
1,2-Dichloroethane-d4	76.0	%					
Toluene-d8	79.0	%					
4-Bromofluorobenzene	77.0	%					
Semi-volatile Organics by GC/MS				1	8270	08-Jul	16-JUL
Acenaphthene	ND	ug/kg	140				
Benzidine	ND	ug/kg	1200				
1,2,4-Trichlorobenzene	ND	ug/kg	180				
Hexachlorobenzene	ND	ug/kg	140				
Bis(2-chloroethyl)ether	ND	ug/kg	150				
2-Chloronaphthalene	ND	ug/kg	150				
1,2-Dichlorobenzene	ND	ug/kg	140				
1,3-Dichlorobenzene	ND	ug/kg	160				
1,4-Dichlorobenzene	ND	ug/kg	120				
3,3'-Dichlorobenzidine	ND	ug/kg	320				
2,4-Dinitrotoluene	ND	ug/kg	180				
2,6-Dinitrotoluene	ND	ug/kg	140				
Azobenzene	ND	ug/kg	140				
Fluoranthene	ND	ug/kg	140				
4-Chlorophenyl phenyl ether	ND	ug/kg	150				
4-Bromophenyl phenyl ether	ND	ug/kg	140				
Bis(2-chloroisopropyl)ether	ND	ug/kg	100				
Bis(2-chloroethoxy)methane	ND	ug/kg	110				
Hexachlorobutadiene	ND	ug/kg	400				
Hexachlorocyclopentadiene	ND	ug/kg	380				
Hexachloroethane	ND	ug/kg	250				
Isophorone	ND	ug/kg	120				
Naphthalene	ND	ug/kg	110				
Nitrobenzene	ND	ug/kg	95.				
n-Nitrosodiphenylamine	ND	ug/kg	120				
n-Nitrosodi-n-propylamine	ND	ug/kg	130				
Bis(2-ethylhexyl)phthalate	ND	ug/kg	460				
Butyl benzyl phthalate	ND	ug/kg	100				
Di-n-butylphthalate	ND	ug/kg	140				
Di-n-octylphthalate	ND	ug/kg	120				
Diethyl phthalate	ND	ug/kg	250				
Dimethyl phthalate	ND	ug/kg	250				
Benzo(a)anthracene	ND	ug/kg	160				
Benzo(a)pyrene	ND	ug/kg	190				
Benzo(b,k)fluoranthene	ND	ug/kg	180				
Chrysene	ND	ug/kg	160				
Acenaphthylene	ND	ug/kg	130				
Anthracene	ND	ug/kg	120				

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9305398-05

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP	ANALYSIS
Semi-volatile Organice by GC/MS continued				1	8270	08-Jul	16-JUL
Benzo(ghi)perylene	ND	ug/kg	250				
Fluorene	ND	ug/kg	140				
Phenanthrene	ND	ug/kg	130				
Dibenzo(e,h)anthracene	ND	ug/kg	240				
Indeno(1,2,3-cd)pyrene	ND	ug/kg	240				
Pyrene	ND	ug/kg	140				
Aniline	ND	ug/kg	500				
4-Chloroaniline	ND	ug/kg	200				
1 Methylnaphthalene	ND	ug/kg	350				
2-Nitroaniline	ND	ug/kg	160				
3-Nitroaniline	ND	ug/kg	300				
4-Nitroaniline	ND	ug/kg	290				
Dibenzofuran	ND	ug/kg	100				
a,a-Dimethylphenethylamine	ND	ug/kg	2300				
Hexachloropropene	ND	ug/kg	1000				
Nitroeodi-n-butylamine	ND	ug/kg	240				
2-Methylnaphthalene	ND	ug/kg	90.				
Tetrachlorobenzene	ND	ug/kg	620				
Pentachlorobenzene	ND	ug/kg	640				
a-Naphthalamine	ND	ug/kg	1000				
b-Naphthalamine	ND	ug/kg	460				
Diphenylamine	ND	ug/kg	200				
Acetophenetidide	ND	ug/kg	500				
Dimethoate	ND	ug/kg	1000				
4-Aminobiphenyl	ND	ug/kg	520				
Pentachloronitrobenzene	ND	ug/kg	200				
Ieodrin	ND	ug/kg	190				
p-Dimethylaminoazobenzene	ND	ug/kg	360				
Chlorobenzilate	ND	ug/kg	800				
Bis(2-ethylhexyl)adipate	ND	ug/kg	160				
3-Methylcholanthrene	ND	ug/kg	1000				
Ethylmethaneeulfonate	ND	ug/kg	730				
Acetophenone	ND	ug/kg	240				
Nitrosodipiperidine	ND	ug/kg	1000				
7,12-Dimethylbenz(a)anthracene	ND	ug/kg	1200				
n-Nitrosodimethylamine	ND	ug/kg	2000				
2,4,6-Trichlorophenol	ND	ug/kg	100				
p-Chloro-m-creeol	ND	ug/kg	150				
2-Chlorophenol	ND	ug/kg	160				
2,4-Dichlorophenol	ND	ug/kg	500				
2,4-Dimethylphenol	ND	ug/kg	120				
2-Nitrophenol	ND	ug/kg	160				
4-Nitrophenol	ND	ug/kg	600				
2,4-Dinitrophenol	ND	ug/kg	750				
4,6-Dinitro-o-creaol	ND	ug/kg	870				
Pentachlorophenol	ND	ug/kg	350				
Phenol	ND	ug/kg	420				
Cresol, Total	ND	ug/kg	360				

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9305398-05

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP	ANALYSIS
Semi-volatile Organice by GC/MS contioued				1	8270	08-Jul	16-JUL
2,4,5-Trichlorophenol	ND	ug/kg	140				
2,6-Dichlorophenol	ND	ug/kg	240				
Benzoic Acid	ND	ug/kg	2000				
Benzyl Alcohol	ND	ug/kg	290				
SURROGATE RECOVERY							
2-Fluorophenol	45.0	%					
Phenol-d6	47.0	%					
Nitrobenzene-d5	51.0	%					
2-Fluorobiphenyl	47.0	%					
2,4,6-Tribromophenol	48.0	%					
4-Terphenyl-d14	52.0	%					
Polychlorinated Biphenyls				1	8080	08-Jul	10-JUL
Arochlor 1221	ND	ug/kg	250				
Arochlor 1232	ND	ug/kg	250				
Arochlor 1242/PCB 1016	ND	ug/kg	250				
Arochlor 1248	ND	ug/kg	250				
Arochlor 1254	ND	ug/kg	250				
Arochlor 1260	ND	ug/kg	250				
Arochlor 1262	ND	ug/kg	250				
Arochlor 1268	ND	ug/kg	250				
SURROGATE RECOVERY							
2,4,5,6-Tetrachloro-m-xylene	126.	%					
Decachlorobiphenyl	54.0	%					

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9305398-05

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP	ANALYSIS
Organochlorine Peaticides				1	8080	08-Jul	10-JUL
Delta-BHC	ND	ug/kg	50.				
Lindane	ND	ug/kg	50.				
Alpha-BHC	ND	ug/kg	50.				
Beta-BHC	ND	ug/kg	50.				
Heptachlor	ND	ug/kg	50.				
Aldrin	ND	ug/kg	50.				
Heptachlor epoxide	ND	ug/kg	50.				
Endrin	ND	ug/kg	50.				
Endrin aldehyde	ND	ug/kg	50.				
Endrin ketone	ND	ug/kg	50.				
Dieldrin	ND	ug/kg	50.				
4,4'-DDE	ND	ug/kg	50.				
4,4'-DDD	ND	ug/kg	50.				
4,4'-DDT	ND	ug/kg	50.				
Endosulfan I	ND	ug/kg	50.				
Endosulfan II	ND	ug/kg	50.				
Endosulfan sulfate	ND	ug/kg	50.				
Methoxychlor	ND	ug/kg	50.				
Chlordane	ND	ug/kg	50.				
Toxaphene	ND	ug/kg	50.				
SURROGATE RECOVERY							
2,4,5,6-Tetrachloro-m-xylene	126.	%					
Decachlorobiphenyl	54.0	%					

Comments * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number:	L9305398-06 SS-L7-206	Date Received:	07-JUL-93
Sample Matrix:	SOIL	Date Reported:	21-JUL-93
Condition of Sample:	Satisfactory	Field Prep:	None

Number & Type of Containers: 2 Glass,1 Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP	ANALYSIS
Solids, Total	94.	%	0.10	3	2540B		09-Jul
Hydrocarbona, Total	280	mg/kg	40.	1	418 1	12-Jul	13-Jul
Total Metala				1	3005/3050		
Antimony, Total	ND	mg/kg	100	1	6010	08-Jul	12-Jul
Arsenic, Total	1.9	mg/kg	1.0	1	7060	08-Jul	09-Jul
Beryllium, Total	ND	mg/kg	2.0	1	6010	08-Jul	12-Jul
Cadmium, Total	ND	mg/kg	2.0	1	6010	08-Jul	12-Jul
Chromium, Total	8.4	mg/kg	4.0	1	6010	08-Jul	12-Jul
Copper, Total	8.4	mg/kg	4.0	1	6010	08-Jul	12-Jul
Lead, Total	ND	mg/kg	10	1	6010	08-Jul	12-Jul
Mercury, Total	ND	mg/kg	0 25	1	7470/7471	09-Jul	12-Jul
Nickel, Total	ND	mg/kg	10	1	6010	08-Jul	12-Jul
Selenium, Total	ND	mg/kg	1.0	1	7740	08-Jul	09-Jul
Silver, Total	ND	mg/kg	2 0	1	6010	08-Jul	12-Jul
Thallium, Total	ND	mg/kg	1.0	1	7841	08-Jul	09-Jul
Zinc, Total	25.	mg/kg	2.0	1	6010	08-Jul	12-Jul

Comments * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9305398-06

PARAMETER	RESULT	UNITS	RDL	REP	METHOD	DATES	
						PREP	ANALYSIS
Volatile Organics by GC/MS				1	8260		16-JUL
Methylene chloride	ND	ug/kg	25.				
1,1-Dichloroethane	ND	ug/kg	7.5				
Chloroform	ND	ug/kg	7.5				
Carbon tetrachloride	ND	ug/kg	5.0				
1,2-Dichloropropane	ND	ug/kg	18.				
Oibromochloromethane	ND	ug/kg	5.0				
1,1,2-Trichloroethane	ND	ug/kg	7.5				
2-Chloroethylvinyl ether	ND	ug/kg	50.				
Tetrachloroethene	ND	ug/kg	7.5				
Chlorobenzene	ND	ug/kg	18.				
Trichlorofluoromethene	ND	ug/kg	25.				
1,2-Dichloroethane	ND	ug/kg	7.5				
1,1,1-Trichloroethane	ND	ug/kg	5.0				
Bromodichloromethane	ND	ug/kg	5.0				
trans-1,3-Dichloropropene	ND	ug/kg	7.5				
cis-1,3-Dichloropropene	ND	ug/kg	5.0				
Bromoform	ND	ug/kg	5.0				
1,1,2,2-Tetrechloroethane	ND	ug/kg	5.0				
Benzene	ND	ug/kg	5.0				
Toluene	ND	ug/kg	7.5				
Ethylbenzene	ND	ug/kg	5.0				
Chloromethane	ND	ug/kg	50.				
Bromomethane	ND	ug/kg	10.				
Vinyl chloride	ND	ug/kg	18.				
Chloroethane	ND	ug/kg	10.				
1,1-Dichloroethene	ND	ug/kg	7.5				
trans-1,2-Dichloroethene	ND	ug/kg	7.5				
Trichloroethene	ND	ug/kg	5.0				
1,2-Dichlorobenzene	ND	ug/kg	50.				
1,3-Dichlorobenzene	ND	ug/kg	50.				
1,4-Dichlorobenzene	ND	ug/kg	50.				
Methyl tert butyl ether	ND	ug/kg	50.				
Xylenes	ND	ug/kg	5.0				
cis-1,2-Dichloroethene	ND	ug/kg	5.0				
Dibromomethane	ND	ug/kg	50.				
1,4-Dichlorobutane	ND	ug/kg	50.				
Iodomethane	ND	ug/kg	50.				
1,2,3-Trichloropropane	ND	ug/kg	50.				
Styrene	ND	ug/kg	5.0				
Dichlorodifluoromethane	ND	ug/kg	50.				
Acetone	ND	ug/kg	50.				
Carbon disulfide	ND	ug/kg	50.				
2-Butanone	ND	ug/kg	23.				
Vinyl acetate	ND	ug/kg	50.				
4-Methyl-2-pentanone	ND	ug/kg	50.				
2-Hexanone	ND	ug/kg	50.				
Ethyl methacrylate	ND	ug/kg	50.				
Acrolein	ND	ug/kg	130				

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9305398-06

PARAMETER	RESULT	UNITS	RDL	REP	METHOD	DATES	
						PREP	ANALYSIS
Volatile Organics by GC/MS continued				1	8260		16-JUL
Acrylonitrile	ND	ug/kg	50.				
SURROGATE RECOVERY							
1,2-Dichloroethane-d4	75.0	%					
Toluene-d8	79.0	%					
4-Bromofluorobenzene	82.0	%					
Semi-volatile Organics by GC/MS				1	8270	08-Jul	16-JUL
Acenaphthene	ND	ug/kg	140				
Benzidine	ND	ug/kg	1200				
1,2,4-Trichlorobenzene	ND	ug/kg	180				
Hexechlorobenzene	ND	ug/kg	140				
Bis(2-chloroethyl)ether	ND	ug/kg	150				
2-Chloronaphthalene	ND	ug/kg	150				
1,2-Dichlorobenzene	ND	ug/kg	140				
1,3-Oichlorobenzene	ND	ug/kg	160				
1,4-Dichlorobenzene	ND	ug/kg	120				
3,3'-Dichlorobenzidine	ND	ug/kg	320				
2,4-Dinitrotoluene	ND	ug/kg	180				
2,6-Dinitrotoluene	ND	ug/kg	140				
Azobenzene	ND	ug/kg	140				
Fluoranthene	ND	ug/kg	140				
4-Chlorophenyl phenyl ether	ND	ug/kg	150				
4-Bromophenyl phenyl ether	ND	ug/kg	140				
Bis(2-chloroisopropyl)ether	ND	ug/kg	100				
Bis(2-chloroethoxy)methane	ND	ug/kg	110				
Hexechlorobutadiene	ND	ug/kg	400				
Hexechlorocyclopentadiene	ND	ug/kg	380				
Hexachloroethane	ND	ug/kg	250				
Isophorone	ND	ug/kg	120				
Naphthalene	ND	ug/kg	110				
Nitrobenzene	ND	ug/kg	95.				
n-Nitrosodiphenylamine	ND	ug/kg	120				
n-Nitrosodi-n-propylamine	ND	ug/kg	130				
Bis(2-ethylhexyl)phthalate	ND	ug/kg	460				
Butyl benzyl phthelate	ND	ug/kg	100				
Oi-n-butylphthalate	ND	ug/kg	140				
Oi-n-octylphthalate	ND	ug/kg	120				
Diethyl phthalate	ND	ug/kg	250				
Oimethyl phthalate	ND	ug/kg	250				
Benzo(a)anthracene	ND	ug/kg	160				
Benzo(a)pyrene	ND	ug/kg	190				
Benzo(b,k)fluoranthene	ND	ug/kg	180				
Chrysene	ND	ug/kg	160				
Acenaphthylene	ND	ug/kg	130				
Anthracene	ND	ug/kg	120				

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboretory Sample Number: L9305398-06

PARAMETER	RESULT	UNITS	RDL	REP	METHOD	DATES	
						PREP	ANALYSIS
Semi-volatile Organics by GC/MS continued				1	8270	08-Jul	16-JUL
Benzo(ghi)perylene	ND	ug/kg	250				
Fluorene	ND	ug/kg	140				
Phenanthrene	ND	ug/kg	130				
Dibenzo(a,h)anthracene	ND	ug/kg	240				
Indeno(1,2,3-cd)pyrene	ND	ug/kg	240				
Pyrene	ND	ug/kg	140				
Aniline	ND	ug/kg	500				
4-Chloroaniline	ND	ug/kg	200				
1-Methylnaphthalene	ND	ug/kg	350				
2-Nitroaniline	ND	ug/kg	160				
3-Nitroaniline	ND	ug/kg	300				
4-Nitroaniline	ND	ug/kg	290				
Dibenzofuran	ND	ug/kg	100				
e,e-Dimethylphenethylamine	ND	ug/kg	2300				
Hexachloropropene	ND	ug/kg	1000				
Nitrosodi-n-butylamine	ND	ug/kg	240				
2-Methylnaphthalene	ND	ug/kg	90.				
Tetrachlorobenzene	ND	ug/kg	620				
Pentachlorobenzene	ND	ug/kg	640				
a-Naphthalamine	ND	ug/kg	1000				
b-Naphthalamine	ND	ug/kg	460				
Diphenylamine	ND	ug/kg	200				
Acetophenetidide	ND	ug/kg	500				
Oimethoate	ND	ug/kg	1000				
4-Aminobiphenyl	ND	ug/kg	520				
Pentachloronitrobenzene	ND	ug/kg	200				
Isodrin	ND	ug/kg	190				
p-Dimethylaminoezobenzene	ND	ug/kg	360				
Chlorobenzilete	ND	ug/kg	800				
Bis(2-ethylhexyl)adipate	ND	ug/kg	160				
3-Methylcholanthrene	ND	ug/kg	1000				
Ethylmethanesulfonate	ND	ug/kg	730				
Acetophenone	ND	ug/kg	240				
Nitrosodipiperidine	ND	ug/kg	1000				
7,12-Dimethylbenz(a)anthracene	ND	ug/kg	1200				
n-Nitrosodimethylamine	ND	ug/kg	2000				
2,4,6-Trichlorophenol	ND	ug/kg	100				
p-Chloro-m-cresol	ND	ug/kg	150				
2-Chlorophenol	ND	ug/kg	160				
2,4-Dichlorophenol	ND	ug/kg	500				
2,4-Dimethylphenol	ND	ug/kg	120				
2-Nitrophenol	ND	ug/kg	160				
4-Nitrophenol	ND	ug/kg	600				
2,4-Dinitrophenol	ND	ug/kg	750				
4,6-Dinitro-o-cresol	ND	ug/kg	870				
Pentechlorophenol	ND	ug/kg	350				
Phenol	ND	ug/kg	420				
Cresol, Totel	ND	ug/kg	360				

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9305398-06

PARAMETER	RESULT	UNITS	RDL	REP	METHDD	DATES	
						PREP	ANALYSIS
Semi-volatile Organics by GC/MS continued				1	8270	08-Jul	16-JUL
2,4,5-Trichlorophenol	ND	ug/kg	140				
2,6-Dichlorophenol	ND	ug/kg	240				
Benzoic Acid	ND	ug/kg	2000				
Benzyl Alcohol	ND	ug/kg	290				
SURROGATE RECOVERY							
2-Fluorophenol	33.0	%					
Phenol-d6	38.0	%					
Nitrobenzene-d5	47.0	%					
2-Fluorobiphenyl	47.0	%					
2,4,6-Tribromophenol	49.0	%					
4-Terphenyl-d14	54.0	%					
Polychlorinated Biphenyls				1	8080	08-Jul	10-JUL
Arochlor 1221	ND	ug/kg	250				
Arochlor 1232	ND	ug/kg	250				
Arochlor 1242/PCB 1016	ND	ug/kg	250				
Arochlor 1248	ND	ug/kg	250				
Arochlor 1254	ND	ug/kg	250				
Arochlor 1260	ND	ug/kg	250				
Arochlor 1262	ND	ug/kg	250				
Arochlor 1268	ND	ug/kg	250				
SURROGATE RECOVERY							
2,4,5,6-Tetrachloro-m-xylene	115.	%					
Decachlorobiphenyl	50.0	%					

Comments * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9305398-06

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP	ANALYSIS
Organochlorine Pesticides				1	8080	08-Jul	10-JUL
Delta-BHC	ND	ug/kg	50.				
Lindane	ND	ug/kg	50.				
Alpha-BHC	ND	ug/kg	50.				
Beta-BHC	ND	ug/kg	50.				
Heptachlor	ND	ug/kg	50.				
Aldrin	ND	ug/kg	50.				
Heptachlor epoxide	ND	ug/kg	50.				
Endrin	ND	ug/kg	50.				
Endrin aldehyde	ND	ug/kg	50.				
Endrin ketone	ND	ug/kg	50.				
Dieldrin	ND	ug/kg	50.				
4,4'-DDE	ND	ug/kg	50.				
4,4'-DDD	ND	ug/kg	50.				
4,4'-DDT	ND	ug/kg	50.				
Endosulfan I	ND	ug/kg	50.				
Endosulfan II	ND	ug/kg	50.				
Endosulfan sulfate	ND	ug/kg	50.				
Methoxychlor	ND	ug/kg	50.				
Chlordane	ND	ug/kg	50.				
Toxaphene	ND	ug/kg	50.				
SURROGATE RECOVERY							
2,4,5,6-Tetrachloro-m-xylene	115.	%					
Decachlorobiphenyl	50.0	%					

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number: L9305398-07
SS-L8-207
Sample Matrix: SOIL
Date Received: 07-JUL-93
Date Reported: 21-JUL-93
Condition of Sample: Satisfactory
Field Prep: None
Number & Type of Containers: 1 Glass

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP	ANALYSIS
Solids, Total	91.	%	0.10	3	2540B		12-Jul
Hydrocarbons, Total	150	mg/kg	40.	1	418.1	12-Jul	13-Jul

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number: L9305398-08
SS-L11-208
Sample Matrix: SOIL
Date Received: 07-JUL-93
Date Reported: 21-JUL-93
Condition of Sample: Satisfactory
Field Prep: None
Number & Type of Containers: 1 Glass

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP	ANALYSIS
Solids, Total	94.	%	0.10	3	2540B		12-Jul
Hydrocarbons, Total	1100	mg/kg	40.	1	418.1	12-Jul	13-Jul

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number: L9305398-09
SS-L12-209
Sample Matrix: SOIL
Date Received: 07-JUL-93
Date Reported: 21-JUL-93
Condition of Sample: Satisfactory
Field Prep: None
Number & Type of Containers: 1 Glass

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP	ANALYSIS
Solids, Total	97.	%	0.10	3	2540B		12-Jul
Hydrocarbons, Total	45.	mg/kg	40.	1	418.1	12-Jul	13-Jul

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number: L9305398-10 TRIP BLANK
Date Received: 07-JUL-93
Sample Matrix: WATER
Date Reported: 21-JUL-93
Condition of Sample: Satisfactory
Field Prep: None
Number & Type of Containers: 1 Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP	DATES ANALYSIS
Volatile Organics by GC/MS				1	8260		13-JUL
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	1.5				
Chloroform	ND	ug/l	1.5				
Carbon tetrachloride	ND	ug/l	1.0				
1,2-Dichloropropane	ND	ug/l	3.5				
Dibromochloromethane	ND	ug/l	1.0				
1,1,2-Trichloroethane	ND	ug/l	1.5				
2-Chloroethylvinyl ether	ND	ug/l	10.				
Tetrachloroethene	ND	ug/l	1.5				
Chlorobenzene	ND	ug/l	3.5				
Trichlorofluoromethane	ND	ug/l	5.0				
1,2-Dichloroethane	ND	ug/l	1.5				
1,1,1-Trichloroethane	ND	ug/l	1.0				
Bromodichloromethane	ND	ug/l	1.0				
trans-1,3-Dichloropropene	ND	ug/l	1.5				
cis-1,3-Dichloropropene	ND	ug/l	1.0				
Bromoform	ND	ug/l	1.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0				
Benzene	ND	ug/l	1.0				
Toluene	ND	ug/l	1.5				
Ethylbenzene	ND	ug/l	1.0				
Chloromethane	ND	ug/l	10.				
Bromomethane	ND	ug/l	2.0				
Vinyl chloride	ND	ug/l	3.5				
Chloroethane	ND	ug/l	2.0				
1,1-Dichloroethene	ND	ug/l	1.5				
trans-1,2-Dichloroethene	ND	ug/l	1.5				
Trichloroethene	ND	ug/l	1.0				
1,2-Dichlorobenzene	ND	ug/l	10.				
1,3-Dichlorobenzene	ND	ug/l	10.				
1,4-Dichlorobenzene	ND	ug/l	10.				
Methyl tert butyl ether	ND	ug/l	10.				
Xylenes	ND	ug/l	1.0				
cis-1,2-Dichloroethene	ND	ug/l	1.0				
Dibromomethane	ND	ug/l	10.				
1,4-Dichlorobutane	ND	ug/l	10.				
Iodomethane	ND	ug/l	10.				

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9305398-10

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP	DATES ANALYSIS
Volatile Organics by GC/MS continued				1	8260		13-JUL
1,2,3-Trichloropropane	ND	ug/l	10.				
Styrene	ND	ug/l	1.0				
Dichlorodifluoromethane	ND	ug/l	10.				
Acetone	ND	ug/l	10.				
Carbon disulfide	ND	ug/l	10.				
2-Butanone	ND	ug/l	4.5				
Vinyl acetate	ND	ug/l	10.				
4-Methyl-2-pentanone	ND	ug/l	10.				
2-Hexanone	ND	ug/l	10.				
Ethyl methacrylate	ND	ug/l	10.				
Acrolein	ND	ug/l	25.				
Acrylonitrile	ND	ug/l	10.				
SURROGATE RECOVERY							
1,2-Dichloroethane-d4	103.	%					
Toluene-d8	104.	%					
4-Bromofluorobenzene	100.	%					

Comments: * Complete list of References found in Addendum I

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE DUPLICATE ANALYSIS

Laboratory Job Number: L9305398

Parameter	Value 1	Value 2	RPD	Units
pH	DUPLICATE for sample(s) 01			
	6.2	6.3	2	SU
Hydrocarbons, Total	DUPLICATE for sample(s) 01-09			
	460	380	17	mg/kg
Total Metals	DUPLICATE for sample(s) 04-06			
Antimony, Total	ND	ND	NC	mg/kg
Beryllium, Total	ND	ND	NC	mg/kg
Cadmium, Total	2.1	2.1	0	mg/kg
Chromium, Total	15.	15.	0	mg/kg
Copper, Total	50.	69.	32	mg/kg
Lead, Total	150	200	28	mg/kg
Nickel, Total	21.	23.	10	mg/kg
Silver, Total	ND	ND	NC	mg/kg
Zinc, Total	82.	99.	19	mg/kg
Total Metals	DUPLICATE for sample(s) 04-06			
Arsenic, Total	3.7	3.8	3	mg/kg
Selenium, Total	ND	ND	NC	mg/kg
Thallium, Total	ND	ND	NC	mg/kg
Total Metals	DUPLICATE for sample(s) 04-06			
Mercury, Total	ND	ND	NC	mg/kg
TCLP Extraction	DUPLICATE for sample(s) 01			
Mercury, TCLP	ND	ND	NC	mg/l

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE SPIKE ANALYSES

Laboratory Job Number: L9305398

Parameter	% Recovery
Hydrocarbons, Total	SPIKE for sample(s) 01-09
	100
Total Metals	SPIKE for sample(s) 04-06
Beryllium, Total	100
Cadmium, Total	104
Chromium, Total	105
Copper, Total	108
Lead, Total	108
Nickel, Total	114
Zinc, Total	108
Total Metals	SPIKE for sample(s) 04-06
Arsenic, Total	94
Selenium, Total	80
Thallium, Total	107
TCLP Extraction	SPIKE for sample(s) 01
Arsenic, TCLP	105
Barium, TCLP	100
Cadmium, TCLP	103
Chromium, TCLP	109
Lead, TCLP	117
Selenium, TCLP	107
Silver, TCLP	93
Total Metals	SPIKE for sample(s) 04-06
Mercury, Total	110
TCLP Extraction	SPIKE for sample(s) 01
Mercury, TCLP	105

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE MS/MSD ANALYSIS

Laboratory Job Number: L9305398

Parameter	MS %	MSD %	RPD
Volatile Organics by GC/MS Spike Recovery MS/MSD for sample(s) 10			
1,1-Dichloroethene	92	91	1
Trichloroethene	101	104	3
Benzene	102	104	2
Toluene	102	102	0
Chlorobenzene	101	100	1
Volatile Organics by GC/MS Spike Recovery MS/MSD for sample(s) 01,04-06			
1,1-Dichloroethene	107	97	10
Trichloroethene	97	96	1
Benzene	98	99	1
Toluene	99	97	2
Chlorobenzene	98	98	0
Semi-volatile Organic by GC/MS MS/MSD for sample(s) 04-06			
p-Chloro-m-cresol	98	86	13
2-Chlorophenol	48	52	8
4-Nitrophenol	97	64	41
Pentachlorophenol	112	92	20
Phenol	47	40	16
Acenaphthene	82	88	7
1,2,4-Trichlorobenzene	72	80	11
1,4-Dichlorobenzene	51	64	23
2,4-Dinitrotoluene	95	80	17
N-Nitrosodipropylamine	66	72	9
Pyrene	85	88	3
SURROGATE RECOVERY			
2-Fluorophenol	45	32	34
Phenol-d6	46	42	9
Nitrobenzene-d5	58	70	19
2-Fluorobiphenyl	64	82	25
2,4,6-Tribromophenol	86	94	9
4-Terphenyl-d14	75	94	22

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE MS/MSD ANALYSIS

Laboratory Job Number: L9305398
Continued

Parameter	MS %	MSD %	RPD
Organochlorine Pesticides	MS/MSD for sample(s) 01,04-06		
Lindane	94	101	7
Heptachlor	95	102	7
Aldrin	115	126	9
Endrin	59	70	17
Dieldrin	105	115	9
4,4'-DDT	100	112	11
SURROGATE RECOVERY			
2,4,5,6-Tetrachloro-m-xylene	126	127	1
Decachlorobiphenyl	55	60	9
TCLP Volatile Organics	MS/MSD for sample(s) 01		
Benzene	101	104	3
Carbon tetrachloride	100	102	2
Chlorobenzene	104	106	2
Chloroform	103	105	2
1,4-Dichlorobenzene	107	103	4
1,2-Dichloroethane	105	106	1
1,1-Dichloroethene	100	103	3
Tetrachloroethene	100	103	3
Trichloroethene	102	103	1
Vinyl chloride	99	100	1
Methyl ethyl ketone	109	101	8
SURROGATE RECOVERY			
1,2-Dichloroethane-d4	102	104	2
Toluene-d8	99	103	4
4-Bromofluorobenzene	102	101	1

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE MS/MSD ANALYSIS

Laboratory Job Number: L9305398
Continued

Parameter	MS %	MSD %	RPD
TCLP Semi-Volatile Organics	MS/MSD for sample(s) 01		
Cresol, Total	82	58	34
2,4-Dinitrotoluene	110	101	9
Hexachlorobenzene	114	107	6
Hexachloro-1,3-butadiene	76	56	30
Hexachloroethane	86	57	41
Nitrobenzene	111	82	30
Pentachlorophenol	138	128	8
2,4,5-Trichlorophenol	100	89	12
2,4,6-Trichlorophenol	101	89	13
Pyridine	63	20	104
SURROGATE RECOVERY			
2-Fluorophenol	87	41	72
Phenol-d6	80	44	58
Nitrobenzene-d5	115	85	30
2-Fluorobiphenyl	92	79	15
2,4,6-Tribromophenol	95	87	9
4-Terphenyl-d14	104	98	6
TCLP Pesticides	MS/MSD for sample(s) 01		
Endrin	142	120	17
Heptachlor	74	63	16
Heptachlor epoxide	97	89	9
Lindane	100	90	11
Methoxychlor	105	97	8
SURROGATE RECOVERY			
2,4,5,6-Tetrachloro-m-xylene	83	157	62
Decachlorobiphenyl	49	48	2
TCLP Herbicides	MS/MSD for sample(s) 01		
2,4-D	60	101	51
2,4,5-TP	14	28	67

ALPHA ANALYTICAL LABS
ADDENDUM I
REFERENCES

1. Test Methods for Evaluating Solid Waste. Physical/Chemical Methods. EPA SW-846. 1986.

3. Standard Methods for Examination of Water and Waste Water. APHA-AWWA-WPCF. 17th Edition. 1989

CHAIN OF CUSTODY RECORD

Rizzo Associates Inc.
235 West Central Street
Natick, MA 01760
(508) 651-3401
(508) 651-1189 (FAX)

Rizzo Project Number: 2428-02
Rizzo Project Name: [illegible] Somerville
Samplers (Signatures):

Lab: Alpha
Lab ID #:
Send report to:
Turnaround Time:

Rizzo Sample Number	Sample Depth	Sample Location	Sample Collected		Container			Sample Matrix	Requested Analyses
			Date	Time	#	Type	Preservative		
SS-Stockpk-201			7/6/93	[illegible]		·	No	Soil	TCLP (RCRA 8, VOCs, BNAs) Corrosivity, TPH, VOC (8260) PCB, Particulates, ignitability, reactivity (CN & sulfide) flash
SS-L1-202						4 oz			TPH
SS-L2-203						4 oz			TPH
SS-L3-204						2 8oz, 1 3oz			TPH, 13 pp metals, semi-VOA + PCB + Pest, 8260
SS-L4-205						"			"
SS-L7-206						"			"
SS-~~[illegible]~~L8-207					1	8 oz			TPH
SS-L11-208					1	8 oz			TPH
SS-L12-209				[illegible]	1	8 oz			TPH
Trip Blank								Water	8260

Relinquished by:	Received by:	Date:	Time:
		7/7/93	1:00
		7/7/93	pm

Method of Shipment: cooler/ice packs

WHITE - ANALYTICAL LABORATORY • YELLOW - QC OFFICER • PINK - CHAIN-OF-CUSTODY NOTEBOOK • GOLD - PROJECT FILE

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: Rizzo Associates
Address: 1 Grant Street
Framingham, MA 01701-9005
Attn: Mr. Justin Walsh
Project Number: 2428.06
Site: SOMERVILLE

Laboratory Job Number: L0210589
Date Received: 16-OCT-2002
Date Reported: 23-OCT-2002
Delivery Method: Alpha

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0210589-01	RIZ 1-101502	
L0210589-02	ET 1-101502	
L0210589-03	ET 3-101502	

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean

Scott McLean - Technical Director
This document electronically signed

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0210589

Alpha Report L0210589:

Extractable Petroleum Hydrocarbons/Polynuclear Aromatic Hydrocarbons

It should be noted that the EPH Hydrocarbon ranges were analyzed via GC-FID in accordance with MADEP Method 98-1. The PAH target compounds were then determined by analyzing the aromatic extract by GC/MS 8270C-SIM.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0210589-01
RIZ 1-101502
Sample Matrix: WATER
Condition of Sample: Satisfactory
Number & Type of Containers: 2-Amber,4-Vial

Date Collected: 15-OCT-2002 12:00
Date Received : 16-OCT-2002
Date Reported : 23-OCT-2002
Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260				1 8260B		1021 11:23	BT
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
Trichlorofluoromethane	ND	ug/l	2.5				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
1,1-Dichloropropene	ND	ug/l	2.5				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Benzene	ND	ug/l	0.50				
Toluene	ND	ug/l	0.75				
Ethylbenzene	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Bromomethane	ND	ug/l	1.0				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
Methyl tert butyl ether	ND	ug/l	1.0				
p/m-Xylene	ND	ug/l	0.50				
o-Xylene	ND	ug/l	0.50				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dibromomethane	ND	ug/l	5.0				
1,4-Dichlorobutane	ND	ug/l	5.0				
Iodomethane	ND	ug/l	5.0				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0210589-01
RIZ 1-101502

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260 continued				1 8260B		1021 11:23	BT
1,2,3-Trichloropropane	ND	ug/l	5.0				
Styrene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
Acetona	ND	ug/l	5.0				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	5.0				
Vinyl acetste	ND	ug/l	5.0				
4-Methyl-2-pentanone	ND	ug/l	5.0				
2-Hexanone	ND	ug/l	5.0				
Ethyl methacrylate	ND	ug/l	5.0				
Acrolein	ND	ug/l	12.				
Acrylonitrile	ND	ug/l	5.0				
Bromochloromethane	ND	ug/l	2.5				
Tetrabydrofuran	ND	ug/l	10.				
2,2-Dichloropropane	ND	ug/l	2.5				
1,2-Dibromoethane	ND	ug/l	2.5				
1,3-Dichloropropane	ND	ug/l	2.5				
1,1,1,2-Tatrachloroethane	ND	ug/l	0.50				
Bromobenzene	ND	ug/l	2.5				
n-Butylbenzene	ND	ug/I	0.50				
sec-Butylbenzene	ND	ug/l	0.50				
tert-Butylbenzene	ND	ug/l	2 5				
o-Chlorotoluene	ND	ug/l	2.5				
p-Chlorotoluene	ND	ug/l	2.5				
1,2 Dibromo-3-chloropropane	ND	ug/l	2.5				
Hexachlorobutadiene	ND	ug/l	2.5				
Isopropylbenzene	ND	ug/l	0.50				
p-Isopropyltoluene	ND	ug/l	0.50				
Naphthalene	ND	ug/l	2.5				
n-Propylbenzene	ND	ug/l	0.50				
1,2,3-Trichlorobenzene	ND	ug/l	2.5				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				
1,3,5-Trimethylbenzene	ND	ug/l	2.5				
1,2,4-Trimethylbenzene	ND	ug/l	2.5				
trans-1,4-Dichloro-2-butene	ND	ug/l	2.5				
Ethyl ether	ND	ug/l	2.5				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	109.	%	
Toluene-d8	98.0	%	
4-Bromofluorobenzene	103.	%	
Dibromofluoromethane	82.0	%	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
PAH by GC/MS SIM 8270M				1 8270C-M	1017 10:45	1021 16:46	HL
Acanaphthene	ND	ug/l	0.40				
Fluoranthane	ND	ug/l	0.40				
Naphthalene	ND	ug/l	0.40				
Benzo(a)anthracene	ND	ug/l	0.40				
Benzo(a)pyrene	ND	ug/l	0.20				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALTSIS

Laboratory Sample Number: L0210589-01
RIZ 1-101502

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
PAH by GC/MS SIM 8270M continusd				1 8270C-M	1017 10:45	1021 16:46	HL
Benzo(b)fluoranthene	ND	ug/l	0.40				
Benzo(k)fluoranthene	ND	ug/l	0.40				
Chrysene	ND	ug/l	0.40				
Acenaphthylene	ND	ug/l	0.40				
Anthracene	ND	ug/l	0.40				
Benzo(ghi)perylene	ND	ug/l	0.40				
Fluorene	ND	ug/l	0.40				
Phenanthrene	ND	ug/l	0.40				
Dibenzo(a,h)anthracene	ND	ug/l	0.40				
Indeno(1,2,3-cd)Pyrene	ND	ug/l	0.40				
Pyrene	ND	ug/l	0.40				
2-Methylnaphthalene	ND	ug/l	0.40				

Surrogate(s)	Recovery		QC Criteria
o-Terphenyl-ms	93.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALTSIS

Laboratory Sample Mumbar: L0210589-01
RIZ 1-101502

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petrnleum Hydrocarbons				47 98-1		1018 16:43	MM

Quality Control Information

Condition of sample received:	Satisfactory
Aqueous preservative:	Laboratory Provided Preserved Container
Sample temperature upon receipt:	Received on Ice
Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

Please note to subtract the metbod blank from the stated result.
VPH Standard analysis reports only range data with no adjustments.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

PARAMETER	RESULT	UNITS	RDL
C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C12 Aliphatica, Unadjusted	ND	ug/l	40.0
C9-C10 Aromatics	ND	ug/l	40.0

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	80.0	%	70-130
2,5-Dibromotoluene-FID	92.0	%	70-130

Comments: Completa list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0210589-01
RIZ 1-101502

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	1017 10:45	1023 07:07	PD

Quality Control Information

Condition of sample received:	Satisfactory
Aqueous preservative:	Laboratory Provided Preservad Container
Sample temperature upon receipt:	Received on Ice
Sample extraction method:	Extractad Per the Method
Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance atandards for the required procedures achieved?	YES
Were aignificant modifications made to the method as specified in Sect 11.3?	NO

Please note to subtract the method blank from the atated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, ia 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

PARAMETER	RESULT	UNITS	RDL
C9-C18 Aliphatics	ND	ug/l	100.
C19-C36 Aliphatics	ND	ug/l	100.
C11-C22 Aromatics, Unadjusted	ND	ug/l	100.

Surrogate(s)	Recovary		QC Criteria
Chloro-Octadecane	75.0	%	40-140
o-Terphenyl	87.0	%	40-140
2-Fluorobiphenyl	92.0	%	40-140
2-Bromonaphthalene	92.0	%	40-140

Comments: Completa list of References and Gloasary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number:	L0210589-02 ET 1-101502	Date Collected:	15-OCT-2002 13:45
		Date Received :	16-OCT-2002
Sample Matrix:	WATER	Date Reported :	23-OCT-2002
Condition of Sample:	Satisfactory	Field Prep:	None

Number & Type of Containers: 2-Amber,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by GC/MS 8260				1 8260B		1021 12:06	BT
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
Trichlorofluoromethane	ND	ug/l	2.5				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
1,1-Dichloropropene	ND	ug/l	2.5				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Benzene	ND	ug/l	0.50				
Toluene	ND	ug/l	0.75				
Ethylbenzene	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Bromomethane	ND	ug/l	1.0				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
Methyl tert butyl ether	ND	ug/l	1.0				
p/m-Xylene	ND	ug/l	0.50				
o-Xylene	ND	ug/l	0.50				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dibromomethane	ND	ug/l	5.0				
1,4-Dichlorobutane	ND	ug/l	5.0				
Iodomethane	ND	ug/l	5.0				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0210589-02
ET 1-101502

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by GC/MS 8260 continued				1 8260B		1021 12.06	BT
1,2,3-Trichloropropane	ND	ug/l	5.0				
Styrene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
Acetone	ND	ug/l	5.0				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	5.0				
Vinyl acetate	ND	ug/l	5.0				
4-Methyl-2-pentanone	ND	ug/l	5.0				
2-Hexanone	ND	ug/l	5.0				
Ethyl methacrylate	ND	ug/l	5.0				
Acrolein	ND	ug/l	12.				
Acrylonitrile	ND	ug/l	5.0				
Bromochloromethane	ND	ug/l	2.5				
Tetrahydrofuran	ND	ug/l	10.				
2,2-Dichloropropane	ND	ug/l	2.5				
1,2-Dibromoethane	ND	ug/l	2.5				
1,3-Dichloropropane	ND	ug/l	2.5				
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50				
Bromobenzene	ND	ug/l	2.5				
n-Butylbenzene	ND	ug/l	0.50				
sec-Butylbenzene	ND	ug/l	0.50				
tert-Butylbenzene	ND	ug/l	2.5				
o-Chlorotoluene	ND	ug/l	2.5				
p-Chlorotoluene	ND	ug/l	2.5				
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5				
Hexachlorobutadiene	ND	ug/l	2.5				
Isopropylbenzene	ND	ug/l	0.50				
p-Isopropyltoluene	ND	ug/l	0.50				
Naphthalene	ND	ug/l	2.5				
n-Propylbenzene	ND	ug/l	0.50				
1,2,3-Trichlorobenzene	ND	ug/l	2.5				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				
1,3,5-Trimethylbenzene	ND	ug/l	2.5				
1,2,4-Trimethylbenzene	ND	ug/l	2.5				
trans-1,4-Dichloro-2-butene	ND	ug/l	2.5				
Ethyl ether	ND	ug/l	2.5				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	104.	%					
Toluene-d8	98.0	%					
4-Bromofluorobenzene	105.	%					
Dibromofluoromethane	80.0	%					
PAH by GC/MS SIM 8270M				1 8270C-M	1017 10:45	1021 17:28	HL
Acenaphthene	ND	ug/l	0.40				
Fluoranthene	ND	ug/l	0.40				
Naphthalene	ND	ug/l	0.40				
Benzo(a)anthracene	ND	ug/l	0.40				
Benzo(a)pyrene	ND	ug/l	0.20				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0210589-02
ET 1-101502

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
PAH by GC/MS SIM 8270M continued				1 8270C-M	1017 10:45	1021 17:28	HL
Benzo(b)fluoranthene	ND	ug/l	0.40				
Benzo(k)fluoranthene	ND	ug/l	0.40				
Chrysene	ND	ug/l	0.40				
Acenaphthylene	ND	ug/l	0.40				
Anthracene	ND	ug/l	0.40				
Benzo(ghi)perylene	ND	ug/l	0.40				
Fluorene	ND	ug/l	0.40				
Phenanthrene	ND	ug/l	0.40				
Dibenzo(a,h)anthracene	ND	ug/l	0.40				
Indeno(1,2,3-cd)Pyrene	ND	ug/l	0.40				
Pyrene	ND	ug/l	0.40				
2-Methylnaphthalene	ND	ug/l	0.40				
Surrogate(s)	Recovery		QC Criteria				
o-Terphenyl-ms	96.0	%	40-140				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0210589-02
ET 1-101502

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Petroleum Hydrocarbons				47 98-1		1018 17:33	MM

Quality Control Information

Condition of sample received:	Satisfactory
Aqueous preservative:	Laboratory Provided Preserved Container
Sample temperature upon receipt:	Received on Ice
Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

Please note to subtract the method blank from the stated result.
VPH Standard analysis reports only range data with no adjustments.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

PARAMETER	RESULT	UNITS	RDL
C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C10 Aromatics	ND	ug/l	40.0
Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	79.0	%	70-130
2,5-Dibromotoluene-FID	88.0	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0210589-02
ET 1-101502

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	1017 10:45	1023 07:56	PD

Quality Control Information

Condition of sample received	Satisfactory	
Aqueous preservative:	Laboratory Provided Preserved Container	
Sample temperature upon receipt:	Received on Ice	
Sample extraction method:	Extracted Per the Method	
Were all QA/QC procedures REQUIRED by the method followed?		YES
Were all performance/acceptance standards for the required procedures achieved?		YES
Were significant modifications made to the method as specified in Sect 11.3?		NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%

PARAMETER	RESULT	UNITS	RDL
C9-C18 Aliphatics	ND	ug/l	100.
C19-C36 Aliphatics	ND	ug/l	100.
C11-C22 Aromatics, Unadjusted	ND	ug/l	100.

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	67.0	%	40-140
o-Terphenyl	95.0	%	40-140
2-Fluorobiphenyl	95.0	%	40-140
2-Bromonaphthalene	94.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number:	L0210589-03 ET 3-101502	Date Collected:	15-OCT-2002 12:45
		Date Received :	16-OCT-2002
Sample Matrix:	WATER	Date Reported :	23-OCT-2002
Condition of Sample:	Satisfactory	Field Prep:	None

Number & Type of Containers: 2-Amber,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260				1 8260B		1021 12:50	BT
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
Trichlorofluoromethane	ND	ug/l	2.5				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
1,1-Dichloropropene	ND	ug/l	2.5				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Benzene	ND	ug/l	0.50				
Toluene	ND	ug/l	0.75				
Ethylbenzene	1.0	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Bromomethane	ND	ug/l	1.0				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
Methyl tert butyl ether	1.0	ug/l	1.0				
p/m-Xylene	ND	ug/l	0.50				
o-Xylene	ND	ug/l	0.50				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dibromomethane	ND	ug/l	5.0				
1,4-Dichlorobutane	ND	ug/l	5.0				
Iodomethane	ND	ug/l	5.0				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0210589-03
ET 3-101502

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260 continued				1 8260B		1021 12:50	BT
1,2,3-Trichloropropane	ND	ug/l	5.0				
Styrene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
Acetone	ND	ug/l	5.0				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	5.0				
Vinyl acetate	ND	ug/l	5.0				
4-Methyl-2-pentanone	ND	ug/l	5.0				
2-Hexanone	ND	ug/l	5.0				
Ethyl methacrylate	ND	ug/l	5.0				
Acrolein	ND	ug/l	12.				
Acrylonitrile	ND	ug/l	5.0				
Bromochloromethane	ND	ug/l	2.5				
Tetrahydrofuran	ND	ug/l	10.				
2,2-Dichloropropane	ND	ug/l	2.5				
1,2-Dibromoethane	ND	ug/l	2.5				
1,3-Dichloropropane	ND	ug/l	2.5				
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50				
Bromobenzene	ND	ug/l	2.5				
n-Butylbenzene	2.5	ug/l	0.50				
sec-Butylbenzene	4.9	ug/l	0.50				
tert-Butylbenzene	ND	ug/l	2.5				
o-Chlorotoluene	ND	ug/l	2.5				
p-Chlorotoluene	ND	ug/l	2.5				
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5				
Hexachlorobutadiene	ND	ug/l	2.5				
Isopropylbenzene	3.2	ug/l	0.50				
p-Isopropyltoluene	ND	ug/l	0.50				
Naphthalene	ND	ug/l	2.5				
n-Propylbenzene	3.9	ug/l	0.50				
1,2,3-Trichlorobenzene	ND	ug/l	2.5				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				
1,3,5-Trimethylbenzene	12.	ug/l	2.5				
1,2,4-Trimethylbenzene	36.	ug/l	2.5				
trans-1,4-Dichloro-2-butene	ND	ug/l	2.5				
Ethyl ether	ND	ug/l	2.5				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	108.	%	
Toluene-d8	92.0	%	
4-Bromofluorobenzene	108.	%	
Dibromofluoromethane	86.0	%	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
PAH by GC/MS SIM 8270M				1 8270C-M	1017 10:45	1021 18:50	ML
Acenaphthene	ND	ug/l	0.40				
Fluoranthene	ND	ug/l	0.40				
Naphthalene	ND	ug/l	0.40				
Benzo(a)anthracene	ND	ug/l	0.40				
Benzo(a)pyrene	ND	ug/l	0.20				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0210589-03
ET 3-101502

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
PAH by GC/MS SIM 8270M continued				1 8270C-M	1017 10:45	1021 18:50	ML
Benzo(b)fluoranthene	ND	ug/l	0.40				
Benzo(k)fluoranthene	ND	ug/l	0.40				
Chrysene	ND	ug/l	0.40				
Acenaphthylene	ND	ug/l	0.40				
Anthracene	ND	ug/l	0.40				
Benzo(ghi)perylene	ND	ug/l	0.40				
Fluorene	ND	ug/l	0.40				
Phenanthrene	ND	ug/l	0.40				
Dibenzo(a,h)anthracene	ND	ug/l	0.40				
Indeno(1,2,3-cd)Pyrene	ND	ug/l	0.40				
Pyrene	ND	ug/l	0.40				
2-Methylnaphthalene	ND	ug/l	0.40				

Surrogate(s)	Recovery		QC Criteria
o-Terphenyl-ms	95.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0210589-03
ET 3-101502

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		1018 18 24	MM

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
VPH Standard analysis reports only range data with no adjustments.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Unadjusted	198.	ug/l	40.0
C9-C10 Aromatics	131.	ug/l	40.0

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	84.0	%	70-130
2,5-Dibromotoluene-FID	91.0	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0210589-03
ET 3-101502

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	1017 10:45	1023 08:45	PD

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	ug/l	100.
C19-C36 Aliphatics	ND	ug/l	100.
C11-C22 Aromatics, Unadjusted	119.	ug/l	100.

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	66.0	%	40-140
o-Terphenyl	97.0	%	40-140
2-Fluorobiphenyl	95.0	%	40-140
2-Bromonaphthalene	96.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0210589

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Volatile Petroleum Hydrocarbons for sample(s) 01-03 (L0210495-02, WG125395)					
C5-C8 Aliphatics	ND	ND	ug/l	NC	50
C9-C12 Aliphatics	ND	ND	ug/l	NC	50
C9-C10 Aromatics	ND	ND	ug/l	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	ug/l	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	ug/l	NC	50
Benzene	ND	ND	ug/l	NC	50
Toluene	ND	ND	ug/l	NC	50
Ethylbenzene	ND	ND	ug/l	NC	50
p/m-Xylene	ND	ND	ug/l	NC	50
o-Xylene	ND	ND	ug/l	NC	50
Methyl tert butyl ether	ND	ND	ug/l	NC	50
Naphthalene	ND	ND	ug/l	NC	50

Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	81.0	84.0	%	4	70-130
2,5-Dibromotoluene-FID	90.0	93.0	%	3	70-130

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Extractable Petroleum Hydrocarbons for sample(s) 01-03 (L0210552-01, WG125320)					
C9-C18 Aliphatics	ND	ND	ug/l	NC	50
C19-C36 Aliphatics	ND	ND	ug/l	NC	50
C11-C22 Aromatics	ND	ND	ug/l	NC	50

Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	69.0	77.0	%	11	40-140
o-Terphenyl	95.0	95.0	%	0	40-140
2-Fluorobiphenyl	91.0	86.0	%	6	40-140
2-Bromonaphthalene	91.0	77.0	%	17	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0210589

Parameter	% Recovery	QC Criteria
Volatile Organics by GC/MS 8260 LCS for sample(s) 01-03 (WG125660)		
Chlorobenzene	106	
Benzene	107	
Toluene	106	
1,1-Dichloroethene	104	
Trichloroethene	108	
Surrogate(s)		
1,2-Dichloroethane-d4	109	
Toluene-d8	102	
4-Bromofluorobenzene	101	
Dibromofluoromethane	98	
PAH by GC/MS SIM 8270M LCS for sample(s) 01-03 (WG125319)		
Acenaphthene	68	46-118
Naphthalene	62	
Chrysene	114	
Anthracene	90	
Pyrene	104	26-127
Surrogate(s)		
o-Terphenyl-ms	101	40-140
Volatile Petroleum Hydrocarbons LCS for sample(s) 01-03 (WG125395)		
Benzene	95	70-130
Toluene	90	70-130
Ethylbenzene	92	70-130
p/m-Xylene	86	70-130
o-Xylene	91	70-130
Methyl tert butyl ether	84	70-130
Naphthalene	93	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	92	70-130
2,5-Dibromotoluene-FID	105	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 01-03 (WG125320)		
Naphthalene	63	40-140
Acenaphthene	71	40-140
Anthracene	99	40-140
Pyrene	102	40-140
Chrysene	106	40-140
Nonane (C9)	50	40-140
Tetradecane (C14)	65	40-140
Nonadecane (C19)	93	40-140
Eicosane (C20)	93	40-140
Octacosane (C28)	92	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0210589
Continued

Parameter	% Recovery	QC Criteria
Extractable Petroleum Hydrocarbons LCS for sample(s) 01-03 (WG125320)		
Surrogate(s)		
Chloro-Octadecane	90	40-140
o-Terphenyl	97	40-140
2-Fluorobiphenyl	87	40-140
2-Bromonaphthalene	75	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH MS/MSD ANALYSIS

Laboratory Job Number: L0210589

Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
Volatile Organics by GC/MS 8260 for sample(s) 01-03 (L0210589-01, WG125660)					
Chlorobenzene	95	90	5		
Benzene	98	92	7		
Toluene	94	87	7		
1,1-Dichloroethene	88	79	11		
Trichloroethene	93	86	8		
Surrogate(s)					
1,2-Dichloroethane-d4	108	103	5		
Toluene-d8	100	98	2		
4-Bromofluorobenzene	99	102	3		
Dibromofluoromethane	101	102	1		

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0210589

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-03 (WG125660-4)							
Volatile Organics by GC/MS 8260				1 8260B		1021 09:55	BT
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
Trichlorofluoromethane	ND	ug/l	2.5				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
1,1-Dichloropropene	ND	ug/l	2.5				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Benzene	ND	ug/l	0.50				
Toluene	ND	ug/l	0.75				
Ethylbenzene	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Bromomethane	ND	ug/l	1.0				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
Methyl tert butyl ether	ND	ug/l	1.0				
p/m Xylene	ND	ug/l	0.50				
o Xylene	ND	ug/l	0.50				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dibromomethane	ND	ug/l	5.0				
1,4-Dichlorobutane	ND	ug/l	5.0				
Iodomethane	ND	ug/l	5.0				
1,2,3-Trichloropropane	ND	ug/l	5.0				
Styrene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
Acetone	ND	ug/l	5.0				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	5.0				
Vinyl acetate	ND	ug/l	5.0				
4-Methyl-2-pentanone	ND	ug/l	5.0				
2-Hexanone	ND	ug/l	5.0				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0210589
Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-03 (WG125660-4)							
Volatile Organics by GC/MS 8260 continued				1 8260B		1021 09:55	BT
Ethyl methacrylate	ND	ug/l	5.0				
Acrolein	ND	ug/l	12.				
Acrylonitrile	ND	ug/l	5.0				
Bromochloromethane	ND	ug/l	2.5				
Tetrahydrofuran	ND	ug/l	10.				
2,2-Dichloropropane	ND	ug/l	2.5				
1,2-Dibromoethane	ND	ug/l	2.5				
1,3-Dichloropropane	ND	ug/l	2.5				
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50				
Bromobenzene	ND	ug/l	2.5				
n-Butylbenzene	ND	ug/l	0.50				
sec-Butylbenzene	ND	ug/l	0.50				
tert-Butylbenzene	ND	ug/l	2.5				
o-Chlorotoluene	ND	ug/l	2.5				
p-Chlorotoluene	ND	ug/l	2.5				
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5				
Hexachlorobutadiene	ND	ug/l	2.5				
Isopropylbenzene	ND	ug/l	0.50				
p-Isopropyltoluene	ND	ug/l	0.50				
Naphthalene	ND	ug/l	2.5				
n-Propylbenzene	ND	ug/l	0.50				
1,2,3-Trichlorobenzene	ND	ug/l	2.5				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				
1,3,5-Trimethylbenzene	ND	ug/l	2.5				
1,2,4-Trimethylbenzene	ND	ug/l	2.5				
trans-1,4-Dichloro-2-butene	ND	ug/l	2.5				
Ethyl ether	ND	ug/l	2.5				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	106.	%					
Toluene-d8	96.0	%					
4-Bromofluorobenzene	102.	%					
Dibromofluoromethane	82.0	%					
Blank Analysis for sample(s) 01-03 (WG125319-1)							
PAH by GC/MS SIM 8270M				1 8270C-M	1017 10:45	1021 15:21	HL
Acenaphthene	ND	ug/l	0.40				
Fluoranthene	ND	ug/l	0.40				
Naphthalene	ND	ug/l	0.40				
Benzo(a)anthracene	ND	ug/l	0.40				
Benzo(a)pyrene	ND	ug/l	0.20				
Benzo(b)fluoranthene	ND	ug/l	0.40				
Benzo(k)fluoranthene	ND	ug/l	0.40				
Chrysene	ND	ug/l	0.40				
Acenaphthylene	ND	ug/l	0.40				
Anthracene	ND	ug/l	0.40				
Benzo(ghi)perylene	ND	ug/l	0.40				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0210589

Continued

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-03 (WG125319-1)								
PAH by GC/MS SIM 8270M continued				1	8270C-M	1017 10:45	1021 15:21	ML
Fluorene	ND	ug/l	0.40					
Phenanthrene	ND	ug/l	0.40					
Dibenzo(a,h)anthracene	ND	ug/l	0.40					
Indeno(1,2,3-cd)Pyrene	ND	ug/l	0.40					
Pyrene	ND	ug/l	0.40					
2-Methylnaphthalene	ND	ug/l	0.40					
Surrogate(s)	Recovery		QC Criteria					
o-Terphenyl-ms	114.	%	40-140					
Blank Analysis for sample(s) 01-03 (WG125395-5)								
Volatile Petroleum Hydrocarbons				47	98-1		1018 09:30	MM
C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0					
C9-C12 Aliphatics, Unadjusted	ND	ug/l	40.0					
C9-C10 Aromatics	ND	ug/l	40.0					
C5-C8 Aliphatics, Adjusted	ND	ug/l	40.0					
C9-C12 Aliphatics, Adjusted	ND	ug/l	40.0					
Benzene	ND	ug/l	2.00					
Toluene	ND	ug/l	2.00					
Ethylbenzene	ND	ug/l	2.00					
p/m-Xylene	ND	ug/l	2.00					
o-Xylene	ND	ug/l	2.00					
Methyl tert butyl ether	ND	ug/l	4.00					
Naphthalene	ND	ug/l	20.0					
Surrogate(s)	Recovery		QC Criteria					
2,5-Dibromotoluene-PID	101.	%	70-130					
2,5-Dibromotoluene-FID	105.	%	70-130					
Blank Analysis for sample(s) 01-03 (WG125320-1)								
Extractable Petroleum Hydrocarbons				46	98-1	1017 10:45	1023 03.02	PD
C9-C18 Aliphatics	ND	ug/l	100.					
C19-C36 Aliphatics	ND	ug/l	100.					
C11-C22 Aromatics, Unadjusted	ND	ug/l	100.					
C11-C22 Aromatics, Adjusted	ND	ug/l	100.					
Naphthalene	ND	ug/l	20.0					
2-Methylnaphthalene	ND	ug/l	20.0					
Acenaphthylene	ND	ug/l	20.0					
Acenaphthene	ND	ug/l	20.0					
Fluorene	ND	ug/l	20.0					
Phenanthrene	ND	ug/l	20.0					
Anthracene	ND	ug/l	20.0					
Fluoranthene	ND	ug/l	20.0					
Pyrene	ND	ug/l	20.0					
Benzo(a)anthracene	ND	ug/l	20.0					
Chrysene	ND	ug/l	20.0					
Benzo(b)fluoranthene	ND	ug/l	20.0					

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0210589

Continued

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-03 (WG125320-1)								
Extractable Petroleum Hydrocarbons continued				46	98-1	1017 10:45	1023 03:02	PD
Benzo(k)fluoranthene	ND	ug/l	20.0					
Benzo(a)pyrene	ND	ug/l	20.0					
Indeno(1,2,3-cd)Pyrene	ND	ug/l	20.0					
Dibenzo(a,h)anthracene	ND	ug/l	20.0					
Benzo(g,h,i)perylene	ND	ug/l	20.0					
Surrogate(s)	Recovery		QC Criteria					
Chloro-Octadecane	89.0	%	40-140					
o-Terphenyl	96.0	%	40-140					
2-Fluorobiphenyl	102.	%	40-140					
2-Bromonaphthalene	102.	%	40-140					

ALPHA ANALYTICAL LABORATORIES
ADDENDUM I

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Update III, 1997.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

GLOSSARY OF TERMS AND SYMBOLS

REF	Reference number in which test method may be found.
METHOD	Method number by which analysis was performed.
ID	Initials of the analyst.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

LIMITATION OF LIABILITIES

Alpha Analytical, Inc. performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical, Inc., shall be to re-perform the work at it's own expense In no event shall Alpha Analytical, Inc. be held liable for any incidental consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical, Inc.

We strongly urge our clienta to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding times and aplitting of samplea in the field.

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attachment 1

Quality Control Acceptance Criteria

Volatile Organics by Method 8260B

surrogate spike % recovery	AQ Limits		Soil Limits			
	LCL	UCL	LCL	UCL		
1,2-Dichloroethane-d_4	75%	125%	75%	125%		
4-Bromofluorobenzene	75%	125%	75%	125%		
Toluene-d_8	75%	125%	75%	125%		
Dibromofluoromethane	75%	125%	75%	125%		
matrix spike / matrix spike duplicate	percent recovery				duplicate and/or MSD	
(MS/MSD) & lab control sample (LCS)	AQ Limits		Soil Limits		AQ Limits	Soil Limits
	LCL	UCL	LCL	UCL	RPD	RPD
1,1-Dichloroethene	61%	145%	69%	172%	all target compounds	
Trichloroethene	71%	120%	62%	137%	20%	30%
Chlorobenzene	75%	130%	60%	133%		
Benzene	76%	127%	66%	142%		
Toluene	76%	125%	59%	139%		

Volatile Organics by Method 8021B

surrogate spike % recovery	AQ Limits		Soil Limits			
	LCL	UCL	LCL	UCL		
4-Bromochlorobenzene	70%	110%	70%	120%		
4-Bromofluorobenzene	70%	110%	70%	120%		
matrix spike / matrix spike duplicate	percent recovery				duplicate and/or MSD	
(MS/MSD) & lab control sample (LCS)	AQ Limits		Soil Limits		AQ Limits	Soil Limits
	LCL	UCL	LCL	UCL	RPD	RPD
1,1-Dichloroethene	70%	130%	70%	130%	all target compounds	
Trichloroethene	70%	130%	70%	130%	20%	30%
Chlorobenzene	70%	130%	70%	130%		
Benzene	70%	130%	70%	130%		
Toluene	70%	130%	70%	130%		
Ethylbenzene	70%	130%	70%	130%		

Semi-Volatile Organics by Method 8270C (includes PAHs)

surrogate spike % recovery	AQ Limits		Soil Limits			
	LCL	UCL	LCL	UCL		
Nitrobenzene-d_5	23%	120%	23%	120%		
Phenol-d_6	10%	120%	10%	120%		
2-Fluorophenol	21%	120%	25%	120%		
2-Fluorobiphenyl	43%	120%	30%	120%		
p-Terphenyl-d_{14}	33%	120%	18%	120%		
2,4,6-Tribromophenol	10%	120%	19%	120%		
matrix spike / matrix spike duplicate	percent recovery				duplicate and/or MSD	
(MS/MSD) & lab control sample (LCS)	AQ Limits		Soil Limits		AQ Limits	Soil Limits
	LCL	UCL	LCL	UCL	RPD	RPD
1,2,4-Trichlorobenzene	39%	98%	38%	107%	all target compounds	
Acenaphthene	46%	118%	31%	137%	40%	60%
2,4-Dinitrotoluene	24%	96%	28%	89%		
Pyrene	26%	127%	35%	142%		
N-Nitroso-di-n-propylamine	41%	116%	41%	126%		
1,4-Dichlorobenzene	36%	97%	28%	104%		
Pentachlorophenol	9%	103%	17%	109%		
Phenol	12%	110%	26%	90%		
2-Chlorophenol	27%	123%	25%	102%		
4-Chloro-3-methylphenol	23%	97%	26%	103%		
4-Nitrophenol	10%	80%	11%	114%		

attachment 1

Quality Control Acceptance Criteria

PCB/Pesticides by Method 8082/8081

surrogate spike % recovery	AQ Limits LCL	AQ Limits UCL	Soil Limits LCL	Soil Limits UCL		
2,4,5,6-Tetrachloro-m-xylene	30%	150%	30%	150%		
Decachlorobiphenyl	30%	150%	30%	150%		
matrix spike / matrix spike duplicate (MS/MSD) & lab control sample (LCS)	**percent recovery AQ Limits LCL**	**AQ Limits UCL**	**Soil Limits LCL**	**Soil Limits UCL**	**duplicate and/or MSD AQ Limits RPD**	**Soil Limits RPD**
Lindane	56%	123%	46%	127%	all target compounds	
Heptachlor	40%	131%	35%	130%	30%	50%
Aldrin	40%	120%	34%	132%		
Dieldrin	52%	126%	31%	134%		
Endrin	56%	121%	42%	139%		
4,4'-DDT	38%	127%	23%	134%		
Aroclor 1242/1016	40%	140%	40%	140%		
Aroclor 1260	40%	140%	40%	140%		

Volatile Petroleum Hydrocarbons (VPH) by MA DEP 98-1

surrogate spike % recovery	AQ Limits LCL	AQ Limits UCL	Soil Limits LCL	Soil Limits UCL		
2,5-Dibromotoluene	70%	130%	70%	130%		
laboratory control sample (LCS)	**percent recovery AQ Limits LCL**	**AQ Limits UCL**	**Soil Limits LCL**	**Soil Limits UCL**	**duplicate AQ Limits RPD**	**Soil Limits RPD**
all compounds	70%	130%	70%	130%	50%	50%

Extractable Petroleum Hydrocarbons (EPH) by MA DEP 98-1

surrogate spike % recovery	AQ Limits LCL	AQ Limits UCL	Soil Limits LCL	Soil Limits UCL		
Chloro-octadecane	40%	140%	40%	140%		
ortho-Terphenyl	40%	140%	40%	140%		
2-Fluorobiphenyl (fractionation)	40%	140%	40%	140%		
2-Bromonaphthalene (fractionation)	40%	140%	40%	140%		
laboratory control sample (LCS)	**percent recovery AQ Limits LCL**	**AQ Limits UCL**	**Soil Limits LCL**	**Soil Limits UCL**	**duplicate AQ Limits RPD**	**Soil Limits RPD**
all compounds	40%	140%	40%	140%	50%	50%

TPH (GC-FID) by Method 8100M

surrogate spike % recovery	AQ Limits LCL	AQ Limits UCL	Soil Limits LCL	Soil Limits UCL	duplicate AQ Limits RPD	duplicate Soil Limits RPD
ortho-Terphenyl	40%	140%	40%	140%	40%	40%

TPH by Method 418.1

matrix spike (MS) & laboratory control sample (LCS)	percent recovery AQ Limits LCL	AQ Limits UCL	Soil Limits LCL	Soil Limits UCL	duplicate AQ Limits RPD	duplicate Soil Limits RPD
TPH	60%	140%	60%	140%	40%	40%

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attachment 1

Quality Control Acceptance Criteria

Trace Metals by Method 6010B/7000 series

matrix spike (MS) & laboratory control sample (LCS)	percent recovery AQ Limits LCL	AQ Limits UCL	Soil Limits LCL	Soil Limits UCL	duplicate AQ Limits RPD	duplicate Soil Limits RPD
target analyte	75%	125%	70%	140%	20%	35%

Mercury by Method 7470A/7471A

matrix spike (MS) & laboratory control sample (LCS)	percent recovery AQ Limits LCL	AQ Limits UCL	Soil Limits LCL	Soil Limits UCL	duplicate AQ Limits RPD	duplicate Soil Limits RPD
mercury	70%	130%	60%	140%	35%	45%

Total Cyanide by Method 9010B

matrix spike (MS) & laboratory control sample (LCS)	percent recovery AQ Limits LCL	AQ Limits UCL	Soil Limits LCL	Soil Limits UCL	duplicate AQ Limits RPD	duplicate Soil Limits RPD
cyanide	80%	120%	65%	135%	30%	40%

Total Phenol by Method 9065

matrix spike (MS) & laboratory control sample (LCS)	percent recovery AQ Limits LCL	AQ Limits UCL	Soil Limits LCL	Soil Limits UCL	duplicate AQ Limits RPD	duplicate Soil Limits RPD
phenol	70%	130%	65%	135%	20%	30%

Rizzo Associates, Inc.
A Tetra Tech Company

CHAIN OF CUSTODY RECORD

Rizzo Project Number 2428.06
Rizzo Project Name Somerville Ave
Samplers (Signatures)

Lab Alpha
Lab ID
Send report to: Justin Walsh
Turnaround Time Standard

Rizzo Sample Number	Sample Depth	Sample Location	Sample Collected Date	Sample Collected Time	#	Container Type	Container Preservative	Sample Matrix	Requested Analyses
RIZ1-101502	/		10/15	1200	6	2 Amber 4 VOA	HCL	GW	VOCs, EPH(D), VPH(S)
ET1-101502	/		↓	145	6	↓	↓	↓	↓
ET3-101502	/		↓	1245	6	2 Amber 4 VOA	↓	↓	↓
									-GW-1 standards needs
									-Possible Contamination

Relinquished by	Received by	Date	Time
		10/16/02	4:54
		10/16/02	12:25

Method of Shipment

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: Rizzo Associates
Address: 1 Grant Street
Framingham, MA 01701-9005
Attn: Ms. Janina Curtis
Project Number: 2428-06
Site: SOMERVILLE AVE

Laboratory Job Number: L0211837
Date Received: 19-NOV-2002
Date Reported: 26-NOV-2002
Delivery Method: Alpha

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0211837-01	RIZ-2-GW	SOMERVILLE, MA

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean

Scott McLean - Technical Director
This document electronically signed

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0211837

Alpha Report L0211837:

Volatile Organics

The matrix spike/matrix spike duplicste Associated with Alpba Sample L0211837-01-shows one or more recoveries to be below the acceptance criteria required for the method. The relstive percent recovery associated with Alpha Sample L0211837-01-shows one or more recoveries to be above the acceptance criteria required for the method. The laboratory control sample recoveries are within acceptable limits.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number:	L0211837-01 RIZ-2-GW	**Date Collected:**	19-NOV-2002 08:00
		Date Received :	19-NOV-2002
Sample Matrix:	WATER	**Dete Reported :**	26-NOV-2002
Condition of Sample:	Satisfactory	**Field Prep:**	None

Number & Type of Conteiners: 2-Amber,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260				1	8260B		1122 18:00	BT
Metbylene chloride	ND	ug/l	5.0					
1,1-Dichloroethane	ND	ug/l	0.75					
Chloroform	ND	ug/l	0.75					
Carbon tetrachloride	ND	ug/l	0.50					
1,2-Dichloropropane	ND	ug/l	1.8					
Dibromochloromethane	ND	ug/l	0.50					
1,1,2-Trichloroethane	ND	ug/l	0.75					
Tetrachloroethene	ND	ug/l	0.50					
Chlorobenzene	ND	ug/l	0.50					
Trichlorofluoromethane	ND	ug/l	2.5					
1,2-Dichloroethane	ND	ug/l	0.50					
1,1,1-Trichloroethane	ND	ug/l	0.50					
Bromodichloromethane	ND	ug/l	0.50					
trans-1,3-Dichloropropene	ND	ug/l	0.50					
cis-1,3-Dichloropropene	ND	ug/l	0.50					
1,1-Dichloropropene	ND	ug/l	2.5					
Bromoform	ND	ug/l	2.0					
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50					
Benzene	ND	ug/l	0.50					
Toluene	ND	ug/l	0.75					
Ethylbenzene	ND	ug/l	0.50					
Chloromethane	ND	ug/l	2.5					
Bromomethane	ND	ug/l	1.0					
Vinyl chloride	ND	ug/l	1.0					
Chloroethane	ND	ug/l	1.0					
1,1-Dichloroethene	ND	ug/l	0.50					
trans-1,2-Dichloroethene	ND	ug/l	0.75					
Trichloroethene	ND	ug/l	0.50					
1,2-Dichlorobenzene	ND	ug/l	2.5					
1,3-Dichlorobenzene	ND	ug/l	2.5					
1,4-Dichlorobenzene	ND	ug/l	2.5					
Methyl tert butyl ether	ND	ug/l	1.0					
p/m-Xylene	ND	ug/l	0.50					
o-Xylene	ND	ug/l	0.50					
cis-1,2-Dichloroethene	ND	ug/l	0.50					
Dibromomethane	ND	ug/l	5.0					
1,4-Dichlorobutane	ND	ug/l	5.0					
Iodomethane	ND	ug/l	5.0					

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0211837-01
RIZ-2-GW

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260 continued				1	8260B		1122 18:00	BT
1,2,3-Trichloropropane	ND	ug/l	5.0					
Styrene	ND	ug/l	0.50					
Dichlorodifluoromethane	ND	ug/l	5.0					
Acetone	ND	ug/l	5.0					
Carbon disulfide	ND	ug/l	5.0					
2-Butanone	ND	ug/l	5.0					
Vinyl scetste	ND	ug/l	5.0					
4-Methyl-2-pentanone	ND	ug/l	5.0					
2-Hexanone	ND	ug/l	5.0					
Ethyl methacrylate	ND	ug/l	5.0					
Acrolein	ND	ug/l	12.					
Acrylonitrile	ND	ug/l	5.0					
Bromochloromethane	ND	ug/l	2.5					
Tetrahydrofuran	ND	ug/l	10.					
2,2-Dichloropropane	ND	ug/l	2.5					
1,2-Dibromoethane	ND	ug/l	2.5					
1,3-Dichloropropane	ND	ug/l	2.5					
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50					
Bromobenzene	ND	ug/l	2.5					
n-Butylbenzene	ND	ug/l	0.50					
sec-Butylbenzene	ND	ug/l	0.50					
tert-Butylbenzene	ND	ug/l	2.5					
o-Chlorotoluene	ND	ug/l	2.5					
p-Chlorotoluene	ND	ug/l	2.5					
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5					
Hexachlorobutsdiene	ND	ug/l	2.5					
Isopropylbenzene	ND	ug/l	0.50					
p-Isopropyltoluene	ND	ug/l	0.50					
Naphthalene	ND	ug/l	2.5					
n-Propylbenzene	ND	ug/l	0.50					
1,2,3-Trichlorobenzene	ND	ug/l	2.5					
1,2,4-Trichlorobenzene	ND	ug/l	2.5					
1,3,5-Trimethylbenzene	ND	ug/l	2.5					
1,2,4-Trimethylbenzene	ND	ug/l	2.5					
trans-1,4-Dichloro-2-butene	ND	ug/l	2.5					
Ethyl ether	ND	ug/l	2.5					

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	112.	%	
Toluene-d8	104.	%	
4-Bromofluorobenzene	105.	%	
Dibromofluoromethane	110.	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboretory Sample Number: L0211837-01
RIZ-2-GW

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47	98-1		1121 19:49	HM

Quality Control Information

Condition of sample received:	Satisfactory
Aqueous preservative:	Laboratory Provided Preserved Container
Sample temperature upon receipt:	Received on Ice
Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

Please note to subtract the method blank from the stated result.
VPH Standard analysis reports only range data with no adjustments.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

PARAMETER	RESULT	UNITS	RDL
C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C10 Aromatics	ND	ug/l	40.0

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	86.0	%	70-130
2,5-Dibromotoluene-FID	88.0	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0211837-01
RIZ-2-GW

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	1120 12:30	1121 17:30	PD

Quality Control Information

Condition of sample received:	Satisfactory
Aqueous preservative:	Laboratory Provided Preserved Container
Sample temperature upon receipt:	Received on Ice
Sample extraction method:	Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	ug/l	106.
C19-C36 Aliphatics	ND	ug/l	106.
C11-C22 Aromatics, Unadjusted	ND	ug/l	106.
C11-C22 Aromatics, Adjusted	ND	ug/l	106.
Naphthalene	ND	ug/l	21.3
2-Methylnaphthalene	ND	ug/l	21.3
Acenaphthylene	ND	ug/l	21.3
Acenaphthene	ND	ug/l	21.3
Fluorene	ND	ug/l	21.3
Phenanthrene	ND	ug/l	21.3
Anthracene	ND	ug/l	21.3
Fluoranthene	ND	ug/l	21.3
Pyrene	ND	ug/l	21.3
Benzo(a)anthracene	ND	ug/l	21.3
Chrysene	ND	ug/l	21.3
Benzo(b)fluoranthene	ND	ug/l	21.3
Benzo(k)fluoranthene	ND	ug/l	21.3
Benzo(a)pyrene	ND	ug/l	21.3
Indeno(1,2,3-cd)Pyrene	ND	ug/l	21 3
Dibenzo(a,h)anthracene	ND	ug/l	21.3
Benzo(g,h,i)perylene	ND	ug/l	21.3

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	67.0	%	40-140
o-Terphenyl	92.0	%	40-140
2-Fluorobiphenyl	89.0	%	40-140
2-Bromonaphthalene	97.0	%	40-140

Comments Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0211837

Parameter	Value 1	Value 2	Units	RPD	RPD Limits	
Volatile Petroleum Hydrocarbons for sample(s) 01 (L0211767-01, WG128171)						
C5-C8 Aliphatics	ND	ND	ug/l	NC	50	
C9-C12 Aliphatics	ND	ND	ug/l	NC	50	
C9-C10 Aromatics	ND	ND	ug/l	NC	50	
C5-C8 Aliphatics, Adjusted	ND	ND	ug/l	NC	50	
C9-C12 Aliphatics, Adjusted	ND	ND	ug/l	NC	50	
Benzene	ND	ND	ug/l	NC	50	
Toluene	ND	ND	ug/l	NC	50	
Ethylbenzene	ND	ND	ug/l	NC	50	
p/m-Xylene	ND	ND	ug/l	NC	50	
o-Xylene	ND	ND	ug/l	NC	50	
Methyl tert butyl ether	ND	ND	ug/l	NC	50	
Naphthalene	ND	ND	ug/l	NC	50	
Surrogate(s)	Recovery					QC Criteria
2,5-Dibromotoluene-PID	86.0	86.0	%	0		70-130
2,5-Dibromotoluene-FID	87.0	87.0	%	0		70-130
Extractable Petroleum Hydrocarbons for sample(s) 01 (L0211804-01, WG128032)						
C9-C18 Aliphatics	ND	ND	ug/l	NC	50	
C19-C36 Aliphatics	ND	ND	ug/l	NC	50	
C11-C22 Aromatics	ND	ND	ug/l	NC	50	
Surrogate(s)	Recovery					QC Criteria
Chloro-Octadecane	77.0	60.0	%	25		40-140
o-Terphenyl	82.0	87.0	%	6		40-140
2-Fluorobiphenyl	78.0	78.0	%	0		40-140
2-Bromonaphthalene	83.0	82.0	%	1		40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0211837

Parameter	% Recovery	QC Criteria
Volatile Organics by GC/MS 8260 LCS for sample(s) 01 (WG128018)		
Chlorobenzene	104	
Benzene	104	
Toluene	106	
1,1-Dichloroethene	100	
Trichloroethene	99	
Surrogate(s)		
1,2-Dichloroethane-d4	101	
Toluene-d9	104	
4-Bromofluorobenzene	103	
Dibromofluoromethane	103	
Volatile Petroleum Hydrocarbons LCS for sample(s) 01 (WG128171)		
Benzene	92	70-130
Toluene	93	70-130
Ethylbenzene	91	70-130
p/m-Xylene	88	70-130
o-Xylene	88	70-130
Methyl tert butyl ether	93	70-130
Naphthalene	94	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	90	70-130
2,5-Dibromotoluene-FID	91	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 01 (WG128032)		
Naphthalene	64	40-140
Acenaphthene	72	40-140
Anthracene	91	40-140
Pyrene	96	40-140
Chrysene	100	40-140
Nonane (C9)	61	40-140
Tetradecane (C14)	80	40-140
Nonadecane (C19)	92	40-140
Eicosane (C20)	94	40-140
Octacosane (C28)	98	40-140
Surrogate(s)		
Chloro-Octadecane	86	40-140
o-Terphenyl	93	40-140
2-Fluorobiphenyl	82	40-140
2-Bromonaphthalene	80	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH MS/MSD ANALYSIS

Laboratory Job Number: L0211837

Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
Volatile Organics by GC/MS 8260 for sample(s) 01 (L0211727-08, WG128018)					
Chlorobenzene	104	100	4		
Benzene	104	100	4		
Toluene	107	102	5		
1,1-Dichloroethene	100	94	6		
Trichloroethene	62	45	31		
Surrogate(s)					
1,2-Dichloroethane-d4	117	110	6		
Toluene-d8	123	117	5		
4-Bromofluorobenzene	116	115	1		
Dibromofluoromethane	123	115	7		

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0211837

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE		ID
						PREP	ANAL	
Blank Analysis for sample(s) 01 (WG128018-10)								
Volatile Organics by GC/MS 8260				1	8260B		1122 16:06	NT
Methylene chloride	ND	ug/l	5.0					
1,1-Dichloroethane	ND	ug/l	0.75					
Chloroform	ND	ug/l	0.75					
Carbon tetrachloride	ND	ug/l	0.50					
1,2-Dichloropropane	ND	ug/l	1.8					
Dibromochloromethane	ND	ug/l	0.50					
1,1,2-Trichloroethane	ND	ug/l	0.75					
Tetrachloroethene	ND	ug/l	0.50					
Chlorobenzene	ND	ug/l	0.50					
Trichlorofluoromethane	ND	ug/l	2.5					
1,2-Dichloroethane	ND	ug/l	0.50					
1,1,1-Trichloroethane	ND	ug/l	0.50					
Bromodichloromethane	ND	ug/l	0.50					
trans-1,3-Dichloropropene	ND	ug/l	0.50					
cis-1,3-Dichloropropene	ND	ug/l	0.50					
1,1-Dichloropropene	ND	ug/l	2.5					
Bromoform	ND	ug/l	2.0					
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50					
Benzene	ND	ug/l	0.50					
Toluene	ND	ug/l	0.75					
Ethylbenzene	ND	ug/l	0.50					
Chloromethane	ND	ug/l	2.5					
Bromomethane	ND	ug/l	1.0					
Vinyl chloride	ND	ug/l	1.0					
Chloroethane	ND	ug/l	1.0					
1,1-Dichloroethene	ND	ug/l	0.50					
trans-1,2-Dichloroethene	ND	ug/l	0.75					
Trichloroethene	ND	ug/l	0.50					
1,2-Dichlorobenzene	ND	ug/l	2.5					
1,3-Dichlorobenzene	ND	ug/l	2.5					
1,4-Dichlorobenzene	ND	ug/l	2.5					
Methyl tert butyl ether	ND	ug/l	1.0					
p/m-Xylene	ND	ug/l	0.50					
o-Xylene	ND	ug/l	0.50					
cis-1,2-Dichloroethene	ND	ug/l	0.50					
Dibromomethane	ND	ug/l	5.0					
1,4-Dichlorobutane	ND	ug/l	5.0					
Iodomethane	ND	ug/l	5.0					
1,2,3-Trichloropropane	ND	ug/l	5.0					
Styrene	ND	ug/l	0.50					
Dichlorodifluoromethane	ND	ug/l	5.0					
Acetone	ND	ug/l	5.0					
Carbon disulfide	ND	ug/l	5.0					
2-Butanone	ND	ug/l	5.0					
Vinyl acetate	ND	ug/l	5.0					
4-Methyl-2-pentanone	ND	ug/l	5.0					
2-Hexanone	ND	ug/l	5.0					

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0211837

Continued

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE		ID
						PREP	ANAL	
Blank Analysis for sample(s) 01 (WG128018-10)								
Volatile Organics by GC/MS 8260 continued				1	8260B		1122 16:06	BT
Ethyl methacrylate	ND	ug/l	5.0					
Acrolein	ND	ug/l	12.					
Acrylonitrile	ND	ug/l	5.0					
Bromochloromethane	ND	ug/l	2.5					
Tetrahydrofuran	ND	ug/l	10.					
2,2-Dichloropropane	ND	ug/l	2.5					
1,2-Dibromoethane	ND	ug/l	2.5					
1,3-Dichloropropane	ND	ug/l	2.5					
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50					
Bromobenzene	ND	ug/l	2.5					
n-Butylbenzene	ND	ug/l	0.50					
sec-Butylbenzene	ND	ug/l	0.50					
tert-Butylbenzene	ND	ug/l	2.5					
o-Chlorotoluene	ND	ug/l	2.5					
p-Chlorotoluene	ND	ug/l	2.5					
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5					
Hexachlorobutadiene	ND	ug/l	2.5					
Isopropylbenzene	ND	ug/l	0.50					
p-Isopropyltoluene	ND	ug/l	0.50					
Naphthalene	ND	ug/l	2.5					
n-Propylbenzene	ND	ug/l	0.50					
1,2,3-Trichlorobenzene	ND	ug/l	2.5					
1,2,4-Trichlorobenzene	ND	ug/l	2.5					
1,3,5-Trimethylbenzene	ND	ug/l	2.5					
1,2,4-Trimethylbenzene	ND	ug/l	2.5					
trans-1,4-Dichloro-2-butene	ND	ug/l	2.5					
Ethyl ether	ND	ug/l	2.5					
Surrogate(s)	Recovery		QC Criteria					
1,2-Dichloroethane-d4	105.	%						
Toluene-d8	97.0	%						
4-Bromofluorobenzene	99.0	%						
Dibromofluoromethane	102.	%						
Blank Analysis for sample(s) 01 (WG128171-4)								
Volatile Petroleum Hydrocarbons				47	98-1		1121 09:09	MM
C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0					
C9-C12 Aliphatics, Unadjusted	ND	ug/l	40.0					
C9-C10 Aromatics	ND	ug/l	40.0					
C5-C8 Aliphatics, Adjusted	ND	ug/l	40.0					
C9-C12 Aliphatics, Adjusted	ND	ug/l	40.0					
Benzene	ND	ug/l	2.00					
Toluene	ND	ug/l	2.00					
Ethylbenzene	ND	ug/l	2.00					
p/m-Xylene	ND	ug/l	2.00					
o-Xylene	ND	ug/l	2.00					
Methyl tert butyl ether	ND	ug/l	4.00					

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0211837

Continued

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE		ID
						PREP	ANAL	
Blank Analysis for sample(s) 01 (WG128171-4)								
Volatile Petroleum Hydrocarbons continued				47	98-1		1121 09:09	MM
Naphthalene	ND	ug/l	20.0					
Surrogate(s)	Recovery		QC Criteria					
2,5-Dibromotoluene-PID	86.0	%	70-130					
2,5-Dibromotoluene-FID	86.0	%	70-130					
Blank Analysis for sample(s) 01 (WG128032-1)								
Extractable Petroleum Hydrocarbons				46	98-1	1120 12:30	1121 12:56	PD
C9-C18 Aliphatics	ND	ug/l	100.					
C19-C36 Aliphatics	ND	ug/l	100.					
C11-C22 Aromatics, Unadjusted	ND	ug/l	100.					
C11-C22 Aromatics, Adjusted	ND	ug/l	100.					
Naphthalene	ND	ug/l	20.0					
2-Methylnaphthalene	ND	ug/l	20.0					
Acenaphthylene	ND	ug/l	20.0					
Acenaphthene	ND	ug/l	20.0					
Fluorene	ND	ug/l	20.0					
Phenanthrene	ND	ug/l	20.0					
Anthracene	ND	ug/l	20.0					
Fluoranthene	ND	ug/l	20.0					
Pyrene	ND	ug/l	20.0					
Benzo(a)anthracene	ND	ug/l	20.0					
Chrysene	ND	ug/l	20.0					
Benzo(b)fluoranthene	ND	ug/l	20.0					
Benzo(k)fluoranthene	ND	ug/l	20.0					
Benzo(a)pyrene	ND	ug/l	20.0					
Indeno(1,2,3-cd)Pyrene	ND	ug/l	20.0					
Dibenzo(a,h)anthracene	ND	ug/l	20.0					
Benzo(g,h,i)perylene	ND	ug/l	20.0					
Surrogate(s)	Recovery		QC Criteria					
Chloro-Octadecane	83.0	%	40-140					
o-Terphenyl	67.0	%	40-140					
2-Fluorobiphenyl	64.0	%	40-140					
2-Bromonaphthalene	61.0	%	40-140					

ALPHA ANALYTICAL LABORATORIES
ADDENDUM I

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Update III, 1997.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

GLOSSARY OF TERMS AND SYMBOLS

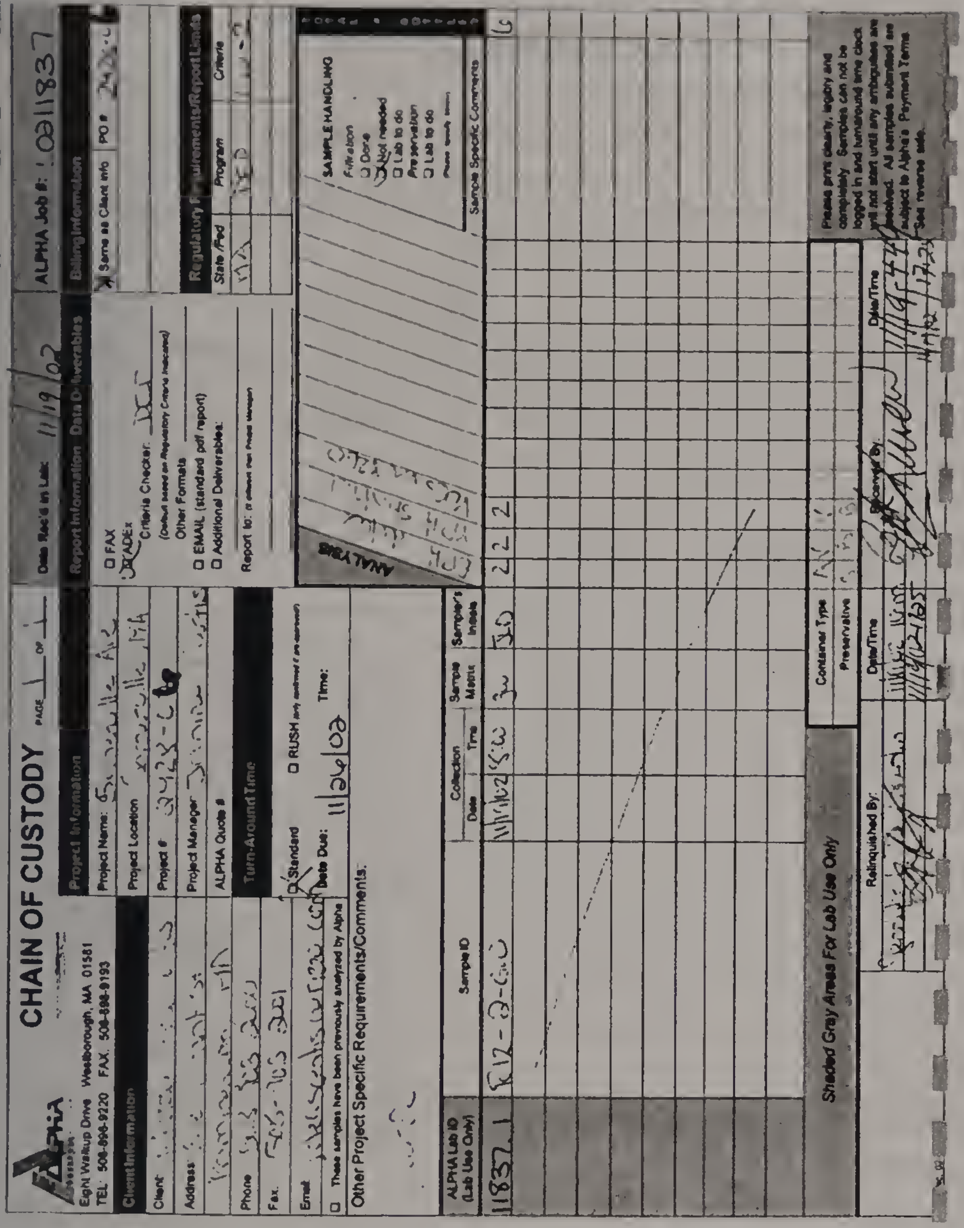
REF	Reference number in which test method may be found.
METHOD	Method number by which analysis was performed.
ID	Initials of the analyst.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

LIMITATION OF LIABILITIES

Alpha Analytical, Inc. performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical, Inc., shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical, Inc. be held liable for any incidental consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical, Inc.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding times and splitting of samples in the field.



CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 11/19/02

ALPHA Job #: L0211837

Eight Walkup Drive Westborough, MA 01581
TEL: 508-898-9220 FAX: 508-898-9193

Project Information
Project Name: Somerville Ave
Project Location: Somerville, MA
Project #: [illegible]
Project Manager: [illegible]
ALPHA Quote #

Report Information Data Deliverables
☐ FAX
☒ ADEx
Criteria Checker: [illegible]
(Default based on Regulatory Criteria Indicated)
Other Formats:
☐ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information
☒ Same as Client info PO #: [illegible]

Regulatory Requirements/Report Limits

State /Fed	Program	Criteria
MA	[illegible]	[illegible]

Client Information
Client: [illegible]
Address: [illegible]
Phone: [illegible]
Fax: [illegible]
Email: [illegible]

☐ These samples have been previously analyzed by Alpha

Turn-Around Time
☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 11/26/02 Time:

Other Project Specific Requirements/Comments:

SAMPLE HANDLING
Filtration
☐ Done
☒ Not needed
☐ Lab to do
Preservation
☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS			Sample Specific Comments
11837-1	[illegible]	11/19/02	[illegible]	GW	[illegible]	2	2	2	6

Container Type
Preservative

Relinquished By: | Date/Time | Received By: | Date/Time

Shaded Gray Areas For Lab Use Only

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: Rizzo Associates
Address: 1 Grant Street
Framingham, MA 01701-9005
Attn: Ms. Janina Curtis
Project Number: 2428-07
Site: YK MANAGEMENT

Laboratory Job Number: L0211671
Date Received: 14-NOV-2002
Date Reported: 21-NOV-2002
Delivery Method: Alpha

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0211671-01	GP-1-GW	SOMERVILLE, MA
L0211671-02	GP-2-GW	SOMERVILLE, MA
L0211671-03	GP-3-GW	SOMERVILLE, MA
L0211671-04	GP-4-GW	SOMERVILLE, MA
L0211671-05	GP-5-GW	SOMERVILLE, MA
L0211671-06	GP-1-4-8'	SOMERVILLE, MA
L0211671-07	GP-2-8-12'	SOMERVILLE, MA
L0211671-08	GP-3-4-8'	SOMERVILLE, MA
L0211671-09	GP-4-8-12'	SOMERVILLE, MA
L0211671-10	GP-5-4-8'	SOMERVILLE, MA
L0211671-11	TRIP BLANK	SOMERVILLE, MA
L0211671-12	TRIP BLANK	SOMERVILLE, MA
L0211671-13	TRIP BLANK	SOMERVILLE, MA

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean

Scott McLean - Technical Director
This document electronically signed

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0211671

Alpha Report L0211671:

Volatile Organics

The analysis of Volatile Organics by EPA Method 5035/8260B Low-Level could not be performed on Alpha Sample(s) L0211671-06, -09, and -10 due to the vial cap not being sealed properly.

One or more surrogate percent recoveries for Alpha Sample(s) L0211671-01 are outside the acceptance criteria for the method. However, due to the matrix of the sample(s), no further actions could be performed.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0211671-01
GP-1-GW
Sample Matrix: WATER
Condition of Sample: Satisfactory
Number & Type of Containers: 2-Amber,4-Vial

Date Collected: 14-NOV-2002 12:40
Date Received : 14-NOV-2002
Date Reported : 21-NOV-2002
Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260				1 8260B		1119 17 40 AR	
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0.50				
Chlorobenzene	0.58	ug/l	0.50				
Trichlorofluoromethane	ND	ug/l	2.5				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
1,1-Dichloropropene	ND	ug/l	2.5				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Benzene	ND	ug/l	0.50				
Toluene	ND	ug/l	0.75				
Ethylbenzene	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Bromomethane	ND	ug/l	1.0				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
Methyl tert butyl ether	ND	ug/l	1.0				
p/m-Xylene	ND	ug/l	0.50				
o-Xylene	ND	ug/l	0.50				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dibromomethane	ND	ug/l	5.0				
1,4-Dichlorobutane	ND	ug/l	5.0				
Iodomethane	ND	ug/l	5.0				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0211671-01
GP-1-GW

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260 continued				1 8260B		1118 17:40	AR
1,2,3-Trichloropropane	ND	ug/l	5.0				
Styrene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
Acetone	ND	ug/l	5.0				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	5.0				
Vinyl acetate	ND	ug/l	5.0				
4-Methyl-2-pentanone	ND	ug/l	5.0				
2-Hexanone	ND	ug/l	5.0				
Ethyl methacrylate	ND	ug/l	5.0				
Acrolein	ND	ug/l	12.				
Acrylonitrile	ND	ug/l	5.0				
Bromochloromethane	ND	ug/l	2.5				
Tetrahydrofuran	ND	ug/l	10.				
2,2-Dichloropropane	ND	ug/l	2.5				
1,2-Dibromoethane	ND	ug/l	2.5				
1,3-Dichloropropane	ND	ug/l	2.5				
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50				
Bromobenzene	ND	ug/l	2.5				
n-Butylbenzene	23.	ug/l	0.50				
sec-Butylbenzene	52.	ug/l	0.50				
tert-Butylbenzene	ND	ug/l	2.5				
o-Chlorotoluene	ND	ug/l	2.5				
p-Chlorotoluene	ND	ug/l	2.5				
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5				
Hexachlorobutadiene	ND	ug/l	2.5				
Isopropylbenzene	58.	ug/l	0.50				
p-Isopropyltoluene	28.	ug/l	0.50				
Naphthalene	ND	ug/l	2.5				
n-Propylbenzene	100	ug/l	0.50				
1,2,3-Trichlorobenzene	ND	ug/l	2.5				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				
1,3,5-Trimethylbenzene	ND	ug/l	2.5				
1,2,4-Trimethylbenzene	6.1	ug/l	2.5				
trans-1,4-Dichloro-2-butene	ND	ug/l	2.5				
Ethyl ether	ND	ug/l	2.5				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	108.	%	
Toluene-d8	95.0	%	
4-Bromofluorobenzene	212.	%	
Dibromofluoromethane	107.	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0211671-01
GP-1-GW

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		1118 12:01	PM

Quality Control Information

Condition of sample received:	Satisfactory
Aqueous preservative:	Laboratory Provided Preaerved Container
Sample temperature upon receipt:	Received on Ice
Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

Please note to subtract the method blank from the stated result.
VPH Standard analysis reports only range data with no adjustments.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

PARAMETER	RESULT	UNITS	RDL
C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Unadjusted	1060	ug/l	40.0
C9-C10 Aromatics	758.	ug/l	40.0

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	92.0	%	70-130
2,5-Dibromotoluene-FID	88.0	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0211671-01
GP-1-GW

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	1115 10:00	1118 21:25	PD

Quality Control Information

Condition of sample received:	Satisfactory
Aqueous preaervative:	Laboratory Provided Preserved Container
Sample temperature upon receipt:	Received on Ice
Sample extraction method:	Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures acbieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

PARAMETER	RESULT	UNITS	RDL
C9-C18 Aliphatics	115.	ug/l	100.
C19-C36 Aliphatics	ND	ug/l	100.
C11-C22 Aromatics, Unadjusted	ND	ug/l	100.
C11-C22 Aromatics, Adjusted	ND	ug/l	100.
Naphthalene	ND	ug/l	20.0
2-Methylnaphthalene	ND	ug/l	20.0
Acenaphthylene	ND	ug/l	20.0
Acenaphthene	ND	ug/l	20.0
Fluorene	ND	ug/l	20.0
Phenanthrene	ND	ug/l	20.0
Anthracene	ND	ug/l	20.0
Fluoranthene	ND	ug/l	20.0
Pyrene	ND	ug/l	20.0
Benzo(a)anthracene	ND	ug/l	20.0
Chrysene	ND	ug/l	20.0
Benzo(b)fluoranthene	ND	ug/l	20.0
Benzo(k)fluoranthene	ND	ug/l	20.0
Benzo(a)pyrene	ND	ug/l	20.0
Indeno(1,2,3-cd)Pyrene	ND	ug/l	20.0
Dibenzo(a,h)anthracene	ND	ug/l	20.0
Benzo(g,h,i)perylene	ND	ug/l	20.0

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	59.0	%	40-140
o-Terphenyl	78.0	%	40-140
2-Fluorobiphenyl	74.0	%	40-140
2-Bromonaphthalene	58.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0211671-02
GP-2-GW
Sample Matrix: WATER
Condition of Sample: Satisfactory
Number & Type of Conteinere: 2-Amber,4-Vial

Date Collected: 14-NOV-2002 13:15
Dete Received : 14-NOV-2002
Dete Reported : 21-NOV-2002
Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260				1 8260B		1118 10:20	AR
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
Trichlorofluoromethane	ND	ug/l	2.5				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
1,1-Dichloropropene	ND	ug/l	2.5				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Benzene	ND	ug/l	0.50				
Toluene	ND	ug/l	0.75				
Ethylbenzene	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Bromomethane	ND	ug/l	1.0				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
Methyl tert butyl ether	ND	ug/l	1.0				
p/m-Xylene	ND	ug/l	0.50				
o-Xylene	ND	ug/l	0.50				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dibromomethane	ND	ug/l	5.0				
1,4-Dichlorobutane	ND	ug/l	5.0				
Iodomethane	ND	ug/l	5.0				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laborstory Sample Number: L0211671-02
GP-2-GW

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatila Orgenics by GC/MS 8260 continued				1 8260B		1118 10:20 AM	
1,2,3-Trichloropropene	ND	ug/l	5.0				
Styrene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
Acetone	ND	ug/l	5.0				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	5.0				
Vinyl acetate	ND	ug/l	5.0				
4 Methyl-2-pentanone	ND	ug/l	5.0				
2-Hexanone	ND	ug/l	5.0				
Ethyl methacrylate	ND	ug/l	5.0				
Acrolein	ND	ug/l	12.				
Acrylonitrile	ND	ug/l	5.0				
Bromochloromethane	ND	ug/l	2.5				
Tatrahydrofuran	ND	ug/l	10.				
2,2-Dichloropropane	ND	ug/l	2.5				
1,2-Dibromoethene	ND	ug/l	2.5				
1,3-Dichloropropane	ND	ug/l	2.5				
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50				
Bromobenzene	ND	ug/l	2.5				
n-Butylbenzene	0.93	ug/l	0.50				
sec-Butylbenzene	5.6	ug/l	0.50				
tert-Butylbenzene	ND	ug/l	2.5				
o-Chlorotoluene	ND	ug/l	2.5				
p-Chlorotoluene	ND	ug/l	2.5				
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5				
Hexachlorobutadiene	ND	ug/l	2.5				
Isopropylbenzene	0.71	ug/l	0.50				
p-Isopropyltoluene	ND	ug/l	0.50				
Naphthalene	ND	ug/l	2.5				
n-Propylbenzene	ND	ug/l	0.50				
1,2,3-Trichlorobenzene	ND	ug/l	2.5				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				
1,3,5-Trimethylbenzene	ND	ug/l	2.5				
1,2,4-Trimethylbenzene	ND	ug/l	2.5				
trans-1,4-Dichloro-2-butene	ND	ug/l	2.5				
Ethyl ether	ND	ug/l	2.5				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	107.	%	
Toluene-d8	99.0	%	
4-Bromofluorobenzene	125.	%	
Dibromofluoromethane	104.	%	

Comments: Complete liat of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laborstory Sample Number: L0211671-02
GP-2-GW

PARAMETER	RESULT	UNITB	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Petroleum Hydrocarbons				47 98-1		1118 12:52 PM	

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Were sll QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blenk from the atated result.
VPH Standard analyais reporte only range data with no adjuetments.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, ia 70-130%

C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C12 Aliphatice, Unadjusted	107.	ug/l	40.0
C9-C10 Aromatics	61.8	ug/l	40.0

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	82.0	%	70-130
2,5-Dibromotoluene-FID	77.0	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIB

Laboretory Bample Number: L0211671-02
GP-2-GW

PARAMETER	RESULT	UNITB	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Extractable Petroleum Hydrocarbona				46 98-1	1115 10:00	1118 12:12	PD

Quality Control Information

Condition of sample received: Satiefactory
Aqueous preeervative: Laboratory Provided Preaerved Container
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance atandards for the required procedures achieved? YES
Were significant modifications made to the method as apecified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance renge for the extraction surrogates, Chloro-octadecsne and o-Terphenyl, is 40-140%.
The normal acceptence renge for the fractionation aurrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, ia 40-140%.

C9-C18 Aliphatics	ND	ug/l	100.
C19-C36 Aliphatice	ND	ug/l	100.
C11-C22 Aromatice, Unadjusted	ND	ug/l	100.
C11-C22 Aromatics, Adjusted	ND	ug/l	100.
Naphthalene	ND	ug/l	20.0
2 Methylnaphthalene	ND	ug/l	20.0
Acenaphthylene	ND	ug/l	20.0
Acenaphthane	ND	ug/l	20.0
Fluorene	ND	ug/l	20.0
Phenanthrene	ND	ug/l	20.0
Anthrecene	ND	ug/l	20.0
Fluorenthene	ND	ug/l	20.0
Pyrene	ND	ug/l	20.0
Benzo(a)anthracene	ND	ug/l	20.0
Chryeene	ND	ug/l	20.0
Benzo(b)fluoranthene	ND	ug/l	20.0
Benzo(k)fluoranthene	ND	ug/l	20.0
Benzo(a)pyrene	ND	ug/l	20.0
Indeno(1,2,3-cd)Pyrene	ND	ug/l	20.0
Dibenzo(a,h)anthracene	ND	ug/l	20.0
Benzo(g,h,i)perylene	ND	ug/l	20.0

Surrogeta(s)	Recovery		QC Criteria
Chloro-Octadecana	50.0	%	40-140
o-Terphenyl	75.0	%	40-140
2-Fluorobiphenyl	70 0	%	40-140
2-Bromonaphthalene	62.0	%	40-140

Commenta. Complete list of References and Gloseary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIB

MA:M-MA086 NH:200301-A CT:PE-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:OSACE

Laboretory Sample Number: L0211671-03
GP-3-GW
Sample Metrix: WATER
Date Collected: 14-NOV-2002 12:00
Date Received : 14-NOV-2002
Dete Reported : 21-NOV-2002

Condition of Sample: Satiafactory
Field Prep: None

Numbar & Typa of Containera: 2-Amber,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by GC/MS 8260				1 8260B		1118 10:50 AM	
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0 75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0 50				
Chlorobenzane	ND	ug/l	0.50				
Trichlorofluoromethane	ND	ug/l	2.5				
1,2-Dichloroethane	ND	ug/l	0 50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trane-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
1,1-Dichloropropene	ND	ug/l	2.5				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Benzene	ND	ug/l	0.50				
Toluene	ND	ug/l	0.75				
Ethylbenzene	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Bromomethane	ND	ug/l	1.0				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethane	ND	ug/l	0.50				
trans-1,2-Dichloroethane	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
Methyl tert butyl ether	ND	ug/l	1.0				
p/m-Xylene	ND	ug/l	0.50				
o-Xylene	ND	ug/l	0.50				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dibromomethane	ND	ug/l	5.0				
1,4-Dichlorobutane	ND	ug/l	5 0				
Iodomethane	ND	ug/l	5.0				

Commente: Complete liat of Referencee and Glooeary of Terms found in Addendum I

Laboratory Sample Number: L0211671-03
GP-3-GW

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260 continued				1	8260B		1118 18:58	AR
1,2,3-Trichloropropane	ND	ug/l	5.0					
Styrene	ND	ug/l	0.50					
Dichlorodifluoromethane	ND	ug/l	5.0					
Acetone	ND	ug/l	5.0					
Carbon disulfide	ND	ug/l	5.0					
2-Butanone	ND	ug/l	5.0					
Vinyl acetate	ND	ug/l	5.0					
4-Methyl-2-pentanone	ND	ug/l	5.0					
2-Hexanone	ND	ug/l	5.0					
Ethyl methacrylate	ND	ug/l	5.0					
Acrolein	ND	ug/l	12.					
Acrylonitrile	ND	ug/l	5.0					
Bromochloromethane	ND	ug/l	2.5					
Tetrahydrofuran	ND	ug/l	10.					
2,2-Dichloropropane	ND	ug/l	2.5					
1,2-Dibromoethane	ND	ug/l	2.5					
1,3-Dichloropropane	ND	ug/l	2.5					
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50					
Bromobenzene	ND	ug/l	2.5					
n-Butylbenzene	ND	ug/l	0.50					
sec-Butylbenzene	ND	ug/l	0.50					
tert-Butylbenzene	ND	ug/l	2.5					
o-Chlorotoluene	ND	ug/l	2.5					
p-Chlorotoluene	ND	ug/l	2.5					
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5					
Hexachlorobutadiene	ND	ug/l	2.5					
Isopropylbenzene	ND	ug/l	0.50					
p-Isopropyltoluene	ND	ug/l	0.50					
Naphthalene	ND	ug/l	2.5					
n-Propylbenzene	ND	ug/l	0.50					
1,2,3-Trichlorobenzene	ND	ug/l	2.5					
1,2,4-Trichlorobenzene	ND	ug/l	2.5					
1,3,5-Trimethylbenzene	ND	ug/l	2.5					
1,2,4-Trimethylbenzene	ND	ug/l	2.5					
trans-1,4-Dichloro-2-butene	ND	ug/l	2.5					
Ethyl ether	ND	ug/l	2.5					

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	106.	%	
Toluene-d8	100.	%	
4-Bromofluorobenzene	101.	%	
Dibromofluoromethane	102.	%	

Laboratory Sample Number: L0211671-03
GP-3-GW

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47	98-1		1115 20:05	MM

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
VPH Standard analysis reports only range data with no adjustments.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

PARAMETER	RESULT	UNITS	RDL
C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C10 Aromatics	ND	ug/l	40.0

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	91.0	%	70-130
2,5-Dibromotoluene-FID	86.0	%	70-130

Laboratory Sample Number: L0211671-03
GP-3-GW

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46	98-2	1119 10:00	1120 15:32	PD

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

PARAMETER	RESULT	UNITS	RDL
C9-C18 Aliphatics	ND	ug/l	114.
C19-C36 Aliphatics	ND	ug/l	114.
C11-C22 Aromatics, Unadjusted	ND	ug/l	114.
C11-C22 Aromatics, Adjusted	ND	ug/l	114.
Naphthalene	ND	ug/l	22.7
2-Methylnaphthalene	ND	ug/l	22.7
Acenaphthylene	ND	ug/l	22.7
Acenaphthene	ND	ug/l	22.7
Fluorene	ND	ug/l	22.7
Phenanthrene	ND	ug/l	22.7
Anthracene	ND	ug/l	22.7
Fluoranthene	ND	ug/l	22.7
Pyrene	ND	ug/l	22.7
Benzo(a)anthracene	ND	ug/l	22.7
Chrysene	ND	ug/l	22.7
Benzo(b)fluoranthene	ND	ug/l	22.7
Benzo(k)fluoranthene	ND	ug/l	22.7
Benzo(a)pyrene	ND	ug/l	22.7
Indeno(1,2,3-cd)Pyrene	ND	ug/l	22.7
Dibenzo(a,h)anthracene	ND	ug/l	22.7
Benzo(g,h,i)perylene	ND	ug/l	22.7

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	44.0	%	40-140
o-Terphenyl	69.0	%	40-140
2-Fluorobiphenyl	66.0	%	40-140
2-Bromonaphthalene	66.0	%	40-140

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0211671-04 **Date Collected:** 14-NOV-2002 13:40
GP-4-GW **Date Received :** 14-NOV-2002
Sample Matrix: WATER **Date Reported :** 21-NOV-2002
Condition of Sample: Satisfactory **Field Prep:** None
Number & Type of Containers: 2-Amber,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260				1	8260B		1118 19:37	AR
Methylene chloride	ND	ug/l	5.0					
1,1-Dichloroethane	ND	ug/l	0.75					
Chloroform	ND	ug/l	0.75					
Carbon tetrachloride	ND	ug/l	0.50					
1,2-Dichloropropane	ND	ug/l	1.8					
Dibromochloromethane	ND	ug/l	0.50					
1,1,2-Trichloroethane	ND	ug/l	0.75					
Tetrachloroethene	ND	ug/l	0.50					
Chlorobenzene	ND	ug/l	0.50					
Trichlorofluoromethane	ND	ug/l	2.5					
1,2-Dichloroethane	ND	ug/l	0.50					
1,1,1-Trichloroethane	ND	ug/l	0.50					
Bromodichloromethane	ND	ug/l	0.50					
trans-1,3-Dichloropropene	ND	ug/l	0.50					
cis-1,3-Dichloropropene	ND	ug/l	0.50					
1,1-Dichloropropene	ND	ug/l	2.5					
Bromoform	ND	ug/l	2.0					
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50					
Benzene	ND	ug/l	0.50					
Toluene	ND	ug/l	0.75					
Ethylbenzene	ND	ug/l	0.50					
Chloromethane	ND	ug/l	2.5					
Bromomethane	ND	ug/l	1.0					
Vinyl chloride	ND	ug/l	1.0					
Chloroethane	ND	ug/l	1.0					
1,1-Dichloroethene	ND	ug/l	0.50					
trans-1,2-Dichloroethene	ND	ug/l	0.75					
Trichloroethene	ND	ug/l	0.50					
1,2-Dichlorobenzene	ND	ug/l	2.5					
1,3-Dichlorobenzene	ND	ug/l	2.5					
1,4-Dichlorobenzene	ND	ug/l	2.5					
Methyl tert butyl ether	1.7	ug/l	1.0					
p/m-Xylene	ND	ug/l	0.50					
o-Xylene	ND	ug/l	0.50					
cis-1,2-Dichloroethene	ND	ug/l	0.50					
Dibromomethane	ND	ug/l	5.0					
1,4-Dichlorobutane	ND	ug/l	5.0					
Iodomethane	ND	ug/l	5.0					

Laboratory Sample Number: L0211671-04
GP-4-GW

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260 continued				1 8260B		1118 19:37	AR
1,2,3-Trichloropropane	ND	ug/l	5.0				
Styrene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
Acetone	ND	ug/l	5.0				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	5.0				
Vinyl acetate	ND	ug/l	5.0				
4-Methyl-2-pentanone	ND	ug/l	5.0				
2-Hexanone	ND	ug/l	5.0				
Ethyl methacrylate	ND	ug/l	5.0				
Acrolein	ND	ug/l	12.				
Acrylonitrile	ND	ug/l	5.0				
Bromochloromethane	ND	ug/l	2.5				
Tetrahydrofuran	ND	ug/l	10.				
2,2-Dichloropropane	ND	ug/l	2.5				
1,2-Dibromoethane	ND	ug/l	2.5				
1,3-Dichloropropane	ND	ug/l	2.5				
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50				
Bromobenzene	ND	ug/l	2.5				
n-Butylbenzene	ND	ug/l	0.50				
sec-Butylbenzene	ND	ug/l	0.50				
tert-Butylbenzene	ND	ug/l	2.5				
o-Chlorotoluene	ND	ug/l	2.5				
p-Chlorotoluene	ND	ug/l	2.5				
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5				
Hexachlorobutadiene	ND	ug/l	2.5				
Isopropylbenzene	ND	ug/l	0.50				
p-Isopropyltoluene	ND	ug/l	0.50				
Naphthalene	ND	ug/l	2.5				
n-Propylbenzene	ND	ug/l	0.50				
1,2,3-Trichlorobenzene	ND	ug/l	2.5				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				
1,3,5-Trimethylbenzene	ND	ug/l	2.5				
1,2,4-Trimethylbenzene	ND	ug/l	2.5				
trans-1,4-Dichloro-2-butene	ND	ug/l	2.5				
Ethyl ether	ND	ug/l	2.5				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	106.	%	
Toluene-d8	100.	%	
4-Bromofluorobenzene	101.	%	
Dibromofluoromethane	104.	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

Laboratory Sample Number: L0211671-04
GP-4-GW

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		1115 20:55	MM

Quality Control Information

Condition of sample received:	Satisfactory	
Aqueous preservative:	Laboratory Provided Preserved Container	
Sample temperature upon receipt:	Received on Ice	
Were all QA/QC procedures REQUIRED by the method followed?		YES
Were all performance/acceptance standards for the required procedures achieved?		YES
Were significant modifications made to the method as specified in Sect 11.3?		NO

Please note to subtract the method blank from the stated result.
VPH Standard analysis reports only range data with no adjustments.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

PARAMETER	RESULT	UNITS	RDL
C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C10 Aromatics	ND	ug/l	40.0

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	85.0	%	70-130
2,5-Dibromotoluene-FID	82.0	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

Laboratory Sample Number: L0211671-04
GP-4-GW

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	1115 18.00	1118 13.44	PD

Quality Control Information

Condition of sample received:	Satisfactory	
Aqueous preservative:	Laboratory Provided Preserved Container	
Sample temperature upon receipt:	Received on Ice	
Sample extraction method:	Extracted Per the Method	
Were all QA/QC procedures REQUIRED by the method followed?		YES
Were all performance/acceptance standards for the required procedures achieved?		YES
Were significant modifications made to the method as specified in Sect 11.3?		NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

PARAMETER	RESULT	UNITS	RDL
C9-C18 Aliphatics	ND	ug/l	100.
C19-C36 Aliphatics	ND	ug/l	100.
C11-C22 Aromatics, Unadjusted	ND	ug/l	100.
C11-C22 Aromatics, Adjusted	ND	ug/l	100.
Naphthalene	ND	ug/l	20.0
2-Methylnaphthalene	ND	ug/l	20.0
Acenaphthylene	ND	ug/l	20.0
Acenaphthene	ND	ug/l	20.0
Fluorene	ND	ug/l	20.0
Phenanthrene	ND	ug/l	20.0
Anthracene	ND	ug/l	20.0
Fluoranthene	ND	ug/l	20.0
Pyrene	ND	ug/l	20.0
Benzo(a)anthracene	ND	ug/l	20.0
Chrysene	ND	ug/l	20.0
Benzo(b)fluoranthene	ND	ug/l	20.0
Benzo(k)fluoranthene	ND	ug/l	20.0
Benzo(a)pyrene	ND	ug/l	20.0
Indeno(1,2,3-cd)Pyrene	ND	ug/l	20.0
Dibenzo(a,h)anthracene	ND	ug/l	20.0
Benzo(g,h,i)perylene	ND	ug/l	20.0

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	66.0	%	40-140
o-Terphenyl	79.0	%	40-140
2-Fluorobiphenyl	81.0	%	40-140
2-Bromonaphthalene	71.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number:	L0211671-05 GP-5-GW	**Date Collected:**	14-NOV-2002 14:30
		Date Received :	14-NOV-2002
Sample Matrix:	WATER	**Date Reported :**	21-NOV-2002
Condition of Sample:	Satisfactory	**Field Prep:**	None

Number & Type of Containers: 2-Amber,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260				1 8260B		1118 20:16	AR
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
Trichlorofluoromethane	ND	ug/l	2.5				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
1,1-Dichloropropene	ND	ug/l	2.5				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Benzene	ND	ug/l	0.50				
Toluene	ND	ug/l	0.75				
Ethylbenzene	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Bromomethane	ND	ug/l	1.0				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
Methyl tert butyl ether	ND	ug/l	1.0				
p/m-Xylene	ND	ug/l	0.50				
o-Xylene	ND	ug/l	0.50				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dibromomethane	ND	ug/l	5.0				
1,4-Dichlorobutane	ND	ug/l	5.0				
Iodomethane	ND	ug/l	5.0				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0211671-05
GP-5-GW

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260 continued				1 8260B		1118 20:16	AR
1,2,3-Trichloropropane	ND	ug/l	5.0				
Styrene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
Acetone	ND	ug/l	5.0				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	5.0				
Vinyl acetate	ND	ug/l	5.0				
4-Methyl-2-pentanone	ND	ug/l	5.0				
2-Hexanone	ND	ug/l	5.0				
Ethyl methacrylate	ND	ug/l	5.0				
Acrolein	ND	ug/l	12.				
Acrylonitrile	ND	ug/l	5.0				
Bromochloromethane	ND	ug/l	2.5				
Tetrahydrofuran	ND	ug/l	10.				
2,2-Dichloropropane	ND	ug/l	2.5				
1,2-Dibromoethane	ND	ug/l	2.5				
1,3-Dichloropropane	ND	ug/l	2.5				
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50				
Bromobenzene	ND	ug/l	2.5				
n-Butylbenzene	ND	ug/l	0.50				
sec-Butylbenzene	ND	ug/l	0.50				
tert-Butylbenzene	ND	ug/l	2.5				
o-Chlorotoluene	ND	ug/l	2.5				
p-Chlorotoluene	ND	ug/l	2.5				
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5				
Hexachlorobutadiene	ND	ug/l	2.5				
Isopropylbenzene	ND	ug/l	0.50				
p-Isopropyltoluene	ND	ug/l	0.50				
Naphthalene	ND	ug/l	2.5				
n-Propylbenzene	ND	ug/l	0.50				
1,2,3-Trichlorobenzene	ND	ug/l	2.5				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				
1,3,5-Trimethylbenzene	ND	ug/l	2.5				
1,2,4-Trimethylbenzene	ND	ug/l	2.5				
trans-1,4-Dichloro-2-butene	ND	ug/l	2.5				
Ethyl ether	ND	ug/l	2.5				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	108.	%	
Toluene-d8	101.	%	
4-Bromofluorobenzene	101.	%	
Dibromofluoromethane	106.	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0211671-05
GP-5-GW

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		1115 18:24	MM

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
VPH Standard analysis reports only range data with no adjustments.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

PARAMETER	RESULT	UNITS	RDL
C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C10 Aromatics	ND	ug/l	40.0

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	87.0	%	70-130
2,5-Dibromotoluene-FID	84.0	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0211671-05
GP-5-GW

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	1115 10:00	1118 14:29	PD

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

PARAMETER	RESULT	UNITS	RDL
C9-C18 Aliphatics	ND	ug/l	100.
C19-C36 Aliphatics	ND	ug/l	100.
C11-C22 Aromatics, Unadjusted	ND	ug/l	100.
C11-C22 Aromatics, Adjusted	ND	ug/l	100.
Naphthalene	ND	ug/l	20.0
2-Methylnaphthalene	ND	ug/l	20.0
Acenaphthylene	ND	ug/l	20.0
Acenaphthene	ND	ug/l	20.0
Fluorene	ND	ug/l	20.0
Phenanthrene	ND	ug/l	20.0
Anthracene	ND	ug/l	20.0
Fluoranthene	ND	ug/l	20.0
Pyrene	ND	ug/l	20.0
Benzo(a)anthracene	ND	ug/l	20.0
Chrysene	ND	ug/l	20.0
Benzo(b)fluoranthene	ND	ug/l	20.0
Benzo(k)fluoranthene	ND	ug/l	20.0
Benzo(a)pyrene	ND	ug/l	20.0
Indeno(1,2,3-cd)Pyrene	ND	ug/l	20.0
Dibenzo(a,h)anthracene	ND	ug/l	20.0
Benzo(g,h,i)perylene	ND	ug/l	20.0

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	62.0	%	40-140
o-Terphenyl	82.0	%	40-140
2-Fluorobiphenyl	79.0	%	40-140
2-Bromonaphthalene	74.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0211671-06
GP-1-4-8'
Sample Matrix: SOIL
Date Collected: 13-NOV-2002 09:30
Date Received : 14-NOV-2002
Date Reported : 21-NOV-2002
Condition of Sample: Satisfactory
Field Prep: None
Number & Type of Containers: 1-Amber,1-Plastic,3-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	91.	%	0.10	30 2540G		1115 14:48	DW
Volatile Organics 8260 via High 5035				1 8260B		1120 18:19	BT
Methylene chloride	ND	ug/kg	520				
1,1-Dichloroethane	ND	ug/kg	78.				
Chloroform	ND	ug/kg	78.				
Carbon tetrachloride	ND	ug/kg	52.				
1,2-Dichloropropane	ND	ug/kg	180				
Dibromochloromethane	ND	ug/kg	52.				
1,1,2-Trichloroethane	ND	ug/kg	78.				
Tetrachloroethene	ND	ug/kg	52.				
Chlorobenzene	ND	ug/kg	52.				
Trichlorofluoromethane	ND	ug/kg	260				
1,2-Dichloroethane	ND	ug/kg	52.				
1,1,1-Trichloroethane	ND	ug/kg	52.				
Bromodichloromethane	ND	ug/kg	52.				
trans-1,3-Dichloropropene	ND	ug/kg	52.				
cis-1,3-Dichloropropene	ND	ug/kg	52.				
1,1-Dichloropropene	ND	ug/kg	260				
Bromoform	ND	ug/kg	210				
1,1,2,2-Tetrachloroethane	ND	ug/kg	52.				
Benzene	ND	ug/kg	52.				
Toluene	ND	ug/kg	78.				
Ethylbenzene	ND	ug/kg	52.				
Chloromethane	ND	ug/kg	260				
Bromomethane	ND	ug/kg	100				
Vinyl chloride	ND	ug/kg	100				
Chloroethane	ND	ug/kg	100				
1,1-Dichloroethene	ND	ug/kg	52.				
trans-1,2-Dichloroethene	ND	ug/kg	78.				
Trichloroethene	ND	ug/kg	52.				
1,2-Dichlorobenzene	ND	ug/kg	260				
1,3-Dichlorobenzene	ND	ug/kg	260				
1,4-Dichlorobenzene	ND	ug/kg	260				
Methyl tert butyl ether	ND	ug/kg	100				
p/m-Xylene	ND	ug/kg	52.				
o-Xylene	ND	ug/kg	52.				
cis-1,2-Dichloroethene	ND	ug/kg	52.				
Dibromomethane	ND	ug/kg	520				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0211671-06
GP-1-4-8'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics 8260 via High 5035 continued				1 8260B		1120 18:19	BT
1,4-Dichlorobutane	ND	ug/kg	520				
Iodomethane	ND	ug/kg	520				
1,2,3-Trichloropropane	ND	ug/kg	520				
Styrene	ND	ug/kg	52.				
Dichlorodifluoromethane	ND	ug/kg	520				
Acetone	ND	ug/kg	520				
Carbon disulfide	ND	ug/kg	520				
2-Butanone	ND	ug/kg	520				
Vinyl acetate	ND	ug/kg	520				
4-Methyl-2-pentanone	ND	ug/kg	520				
2-Hexanone	ND	ug/kg	520				
Ethyl methacrylate	ND	ug/kg	520				
Acrolein	ND	ug/kg	1300				
Acrylonitrile	ND	ug/kg	520				
Bromochloromethane	ND	ug/kg	260				
Tetrahydrofuran	ND	ug/kg	1000				
2,2-Dichloropropane	ND	ug/kg	260				
1,2-Dibromoethane	ND	ug/kg	260				
1,3-Dichloropropana	ND	ug/kg	260				
1,1,1,2-Tetrachloroethane	ND	ug/kg	52.				
Bromobenzene	ND	ug/kg	260				
n-Butylbenzene	ND	ug/kg	52.				
sec-Butylbenzene	ND	ug/kg	52.				
tert-Butylbenzene	ND	ug/kg	260				
o-Chlorotoluene	ND	ug/kg	260				
p-Chlorotoluene	ND	ug/kg	260				
1,2-Dibromo-3-chloropropane	ND	ug/kg	260				
Hexachlorobutadiene	ND	ug/kg	260				
Isopropylbenzene	ND	ug/kg	52.				
p-Isopropyltoluene	ND	ug/kg	52.				
Naphthalene	ND	ug/kg	260				
n-Propylbenzene	ND	ug/kg	52.				
1,2,3-Trichlorobenzene	ND	ug/kg	260				
1,2,4-Trichlorobenzene	ND	ug/kg	260				
1,3,5-Trimethylbenzene	ND	ug/kg	260				
1,2,4-Trimethylbenzene	ND	ug/kg	260				
trans-1,4-Dichloro-2-butene	ND	ug/kg	260				
Ethyl ether	ND	ug/kg	260				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	118.	%	
Toluene-d8	107.	%	
4-Bromofluorobenzene	104.	%	
Dibromofluoromethane	99.0	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0211671-06
GP-1-4-8'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		1115 23:27	MM

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Yes (Covering the Soil)
Methanol ratio: 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
VPH Standard analysis reports only range data with no adjustments.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.07
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.07
C9-C10 Aromatics	ND	mg/kg	2.07

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	85.0	%	70-130
2,5-Dibromotoluene-FID	83.0	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0211671-06
GP-1-4-8'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	1115 09:45	1118 20:35	FD

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	11.0
C19-C36 Aliphatics	ND	mg/kg	11.0
C11-C22 Aromatics, Unadjusted	ND	mg/kg	11.0
C11-C22 Aromatics, Adjusted	ND	mg/kg	11.0
Naphthalene	ND	mg/kg	0.549
2-Methylnaphthalene	ND	mg/kg	0.549
Acenaphthylene	ND	mg/kg	0.549
Acenaphthene	ND	mg/kg	0.549
Fluorene	ND	mg/kg	0.549
Phenanthrene	ND	mg/kg	0.549
Anthracene	ND	mg/kg	0.549
Fluoranthene	ND	mg/kg	0.549
Pyrene	ND	mg/kg	0.549
Benzo(a)anthracene	ND	mg/kg	0.549
Chrysene	ND	mg/kg	0.549
Benzo(b)fluoranthene	ND	mg/kg	0.549
Benzo(k)fluoranthene	ND	mg/kg	0.549
Benzo(a)pyrene	ND	mg/kg	0.549
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.549
Dibenzo(a,h)anthracene	ND	mg/kg	0.549
Benzo(g,h,i)perylene	ND	mg/kg	0.549

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	63.0	%	40-140
o-Terphenyl	76.0	%	40-140
2-Fluorobiphenyl	75.0	%	40-140
2-Bromonaphthalene	66.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0211671-07
GP-2-8-12'
Sample Matrix: SOIL
Condition of Sample: Satisfactory
Number & Type of Containers: 1-Amber,1-Plastic,3-Vial

Date Collected: 13-NOV-2002 11:30
Date Received : 14-NOV-2002
Date Reported : 21-NOV-2002
Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	92.	%	0.10	30 2540G		1115 14:48	BM
Volatile Organics 8260 via Low 5035				1 8260B		1119 17:29	BT
Methylene chloride	ND	ug/kg	21.				
1,1-Dichloroethane	ND	ug/kg	3.1				
Chloroform	ND	ug/kg	3.1				
Carbon tetrachloride	ND	ug/kg	2.1				
1,2-Dichloropropane	ND	ug/kg	7.3				
Dibromochloromethane	ND	ug/kg	2.1				
1,1,2-Trichloroethane	ND	ug/kg	3.1				
Tetrachloroethene	ND	ug/kg	2.1				
Chlorobenzene	ND	ug/kg	2.1				
Trichlorofluoromethane	ND	ug/kg	10.				
1,2-Dichloroethane	ND	ug/kg	2.1				
1,1,1-Trichloroethane	ND	ug/kg	2.1				
Bromodichloromethane	ND	ug/kg	2.1				
trans-1,3-Dichloropropene	ND	ug/kg	2.1				
cis-1,3-Dichloropropene	ND	ug/kg	2.1				
1,1-Dichloropropene	ND	ug/kg	10.				
Bromoform	ND	ug/kg	8.4				
1,1,2,2-Tetrachloroethane	ND	ug/kg	2.1				
Benzene	ND	ug/kg	2.1				
Toluene	ND	ug/kg	3.1				
Ethylbenzene	ND	ug/kg	2.1				
Chloromethane	ND	ug/kg	10.				
Bromomethane	ND	ug/kg	4.2				
Vinyl chloride	ND	ug/kg	4.2				
Chloroethane	ND	ug/kg	4.2				
1,1-Dichloroethene	ND	ug/kg	2.1				
trans-1,2-Dichloroethene	ND	ug/kg	3.1				
Trichloroethene	ND	ug/kg	2.1				
1,2-Dichlorobenzene	ND	ug/kg	10.				
1,3-Dichlorobenzene	ND	ug/kg	10.				
1,4-Dichlorobenzene	ND	ug/kg	10.				
Methyl tert butyl ether	ND	ug/kg	4.2				
p/m-Xylene	ND	ug/kg	2.1				
o-Xylene	ND	ug/kg	2.1				
cis-1,2-Dichloroethene	ND	ug/kg	2.1				
Dibromomethane	ND	ug/kg	21.				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0211671-07
GP-2-8-12'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics 8260 via Low 5035 continued				1 8260B		1119 17:29	BT
1,4-Dichlorobutane	ND	ug/kg	21.				
Iodomethane	ND	ug/kg	21.				
1,2,3-Trichloropropane	ND	ug/kg	21.				
Styrene	ND	ug/kg	2.1				
Dichlorodifluoromethane	ND	ug/kg	21.				
Acetone	ND	ug/kg	21.				
Carbon disulfide	ND	ug/kg	21.				
2-Butanone	ND	ug/kg	21.				
Vinyl acetate	ND	ug/kg	21.				
4-Methyl-2-pentanone	ND	ug/kg	21.				
2-Hexanone	ND	ug/kg	21.				
Ethyl methacrylate	ND	ug/kg	21.				
Acrolein	ND	ug/kg	52.				
Acrylonitrile	ND	ug/kg	21.				
Bromochloromethane	ND	ug/kg	10.				
Tetrahydrofuran	ND	ug/kg	42.				
2,2-Dichloropropane	ND	ug/kg	10.				
1,2-Dibromoethane	ND	ug/kg	10.				
1,3-Dichloropropane	ND	ug/kg	10.				
1,1,1,2-Tetrachloroethane	ND	ug/kg	2.1				
Bromobenzene	ND	ug/kg	10.				
n-Butylbenzene	ND	ug/kg	2.1				
sec-Butylbenzene	ND	ug/kg	2.1				
tert-Butylbenzene	ND	ug/kg	10.				
o-Chlorotoluene	ND	ug/kg	10.				
p-Chlorotoluene	ND	ug/kg	10.				
1,2-Dibromo-3-chloropropane	ND	ug/kg	10.				
Hexachlorobutadiene	ND	ug/kg	10.				
Isopropylbenzene	ND	ug/kg	2.1				
p-Isopropyltoluene	ND	ug/kg	2.1				
Naphthalene	ND	ug/kg	10.				
n-Propylbenzene	ND	ug/kg	2.1				
1,2,3-Trichlorobenzene	ND	ug/kg	10.				
1,2,4-Trichlorobenzene	ND	ug/kg	10.				
1,3,5-Trimethylbenzene	ND	ug/kg	10.				
1,2,4-Trimethylbenzene	ND	ug/kg	10.				
trans-1,4-Dichloro-2-butene	ND	ug/kg	10.				
Ethyl ether	ND	ug/kg	10.				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	118.	%	
Toluene-d8	110.	%	
4-Bromofluorobenzene	105.	%	
Dibromofluoromethane	101.	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0211671-07
GP-2-8-12'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		1116 00:17	MM

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Yes (Covering the Soil)
Methanol ratio: 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
VPH Standard analysis reports only range data with no adjustments.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

PARAMETER	RESULT	UNITS	RDL
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	1.31
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	1.31
C9-C10 Aromatics	ND	mg/kg	1.31

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	82.0	%	70-130
2,5-Dibromotoluene-FID	80.0	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0211671-07
GP-2-8-12'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	1115 09:45	1118 23:52	PD

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

PARAMETER	RESULT	UNITS	RDL
C9-C18 Aliphatics	ND	mg/kg	10.9
C19-C36 Aliphatics	ND	mg/kg	10.9
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.9
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.9
Naphthalene	ND	mg/kg	0.543
2-Methylnaphthalene	ND	mg/kg	0.543
Acenaphthylene	ND	mg/kg	0.543
Acenaphthene	ND	mg/kg	0.543
Fluorene	ND	mg/kg	0.543
Phenanthrene	ND	mg/kg	0.543
Anthracene	ND	mg/kg	0.543
Fluoranthene	ND	mg/kg	0.543
Pyrene	ND	mg/kg	0.543
Benzo(a)anthracene	ND	mg/kg	0.543
Chrysene	ND	mg/kg	0.543
Benzo(b)fluoranthene	ND	mg/kg	0.543
Benzo(k)fluoranthene	ND	mg/kg	0.543
Benzo(a)pyrene	ND	mg/kg	0.543
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.543
Dibenzo(a,h)anthracene	ND	mg/kg	0.543
Benzo(g,h,i)perylene	ND	mg/kg	0.543

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	80.0	%	40-140
o-Terphenyl	79.0	%	40-140
2-Fluorobiphenyl	78.0	%	40-140
2-Bromonaphthalene	75.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0211671-08 **Date Collected:** 13-NOV-2002 12:55
GP-3-4-8' **Date Received :** 14-NOV-2002
Sample Matrix: SOIL **Date Reported :** 21-NOV-2002

Condition of Sample: Satisfactory **Field Prep:** None

Number & Type of Containers: 1-Amber,1-Plastic,3-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	96.	%	0.10	30 2540G		1115 14:40	BW
Volatile Organics 8260 via Low 5035				1 8260B		1119 19:00	BT
Methylene chloride	ND	ug/kg	22.				
1,1-Dichloroethane	ND	ug/kg	3.2				
Chloroform	ND	ug/kg	3.2				
Carbon tetrachloride	ND	ug/kg	2.2				
1,2-Dichloropropane	ND	ug/kg	7.6				
Dibromochloromethane	ND	ug/kg	2.2				
1,1,2-Trichloroethane	ND	ug/kg	3.2				
Tetrachloroethene	ND	ug/kg	2.2				
Chlorobenzene	ND	ug/kg	2.2				
Trichlorofluoromethane	ND	ug/kg	11.				
1,2-Dichloroethane	ND	ug/kg	2.2				
1,1,1-Trichloroethane	ND	ug/kg	2.2				
Bromodichloromethane	ND	ug/kg	2.2				
trans-1,3-Dichloropropene	ND	ug/kg	2.2				
cis-1,3-Dichloropropene	ND	ug/kg	2.2				
1,1-Dichloropropene	ND	ug/kg	11.				
Bromoform	ND	ug/kg	8.7				
1,1,2,2-Tetrachloroethane	ND	ug/kg	2.2				
Benzene	ND	ug/kg	2.2				
Toluene	ND	ug/kg	3.2				
Ethylbenzene	ND	ug/kg	2.2				
Chloromethane	ND	ug/kg	11.				
Bromomethane	ND	ug/kg	4.3				
Vinyl chloride	ND	ug/kg	4.3				
Chloroethane	ND	ug/kg	4.3				
1,1-Dichloroethene	ND	ug/kg	2.2				
trans-1,2-Dichloroethene	ND	ug/kg	3.2				
Trichloroethene	ND	ug/kg	2.2				
1,2-Dichlorobenzene	ND	ug/kg	11.				
1,3-Dichlorobenzene	ND	ug/kg	11.				
1,4-Dichlorobenzene	ND	ug/kg	11.				
Methyl tert butyl ether	ND	ug/kg	4.3				
p/m-Xylene	ND	ug/kg	2.2				
o-Xylene	ND	ug/kg	2.2				
cis-1,2-Dichloroethene	ND	ug/kg	2.2				
Dibromomethane	ND	ug/kg	22.				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0211671-08
GP-3-4-8'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics 8260 via Low 5035 continued				1 8260B		1119 19:00	BT
1,4-Dichlorobutane	ND	ug/kg	22				
Iodomethane	ND	ug/kg	22				
1,2,3-Trichloropropane	ND	ug/kg	22.				
Styrene	ND	ug/kg	2.2				
Dichlorodifluoromethane	ND	ug/kg	22.				
Acetone	ND	ug/kg	22.				
Carbon disulfide	ND	ug/kg	22.				
2-Butanone	ND	ug/kg	22.				
Vinyl acetate	ND	ug/kg	22.				
4-Methyl-2-pentanone	ND	ug/kg	22.				
2-Hexanone	ND	ug/kg	22.				
Ethyl methacrylate	ND	ug/kg	22.				
Acrolein	ND	ug/kg	54.				
Acrylonitrile	ND	ug/kg	22.				
Bromochloromethane	ND	ug/kg	11.				
Tetrahydrofuran	ND	ug/kg	43.				
2,2-Dichloropropane	ND	ug/kg	11.				
1,2-Dibromoethane	ND	ug/kg	11.				
1,3-Dichloropropane	ND	ug/kg	11.				
1,1,1,2-Tetrachloroethane	ND	ug/kg	2.2				
Bromobenzene	ND	ug/kg	11.				
n-Butylbenzene	ND	ug/kg	2.2				
sec-Butylbenzene	ND	ug/kg	2.2				
tert-Butylbenzene	ND	ug/kg	11.				
o-Chlorotoluene	ND	ug/kg	11.				
p-Chlorotoluene	ND	ug/kg	11.				
1,2-Dibromo-3-chloropropane	ND	ug/kg	11				
Hexachlorobutadiene	ND	ug/kg	11.				
Isopropylbenzene	ND	ug/kg	2.2				
p-Isopropyltoluene	ND	ug/kg	2.2				
Naphthalene	ND	ug/kg	11.				
n-Propylbenzene	ND	ug/kg	2.2				
1,2,3-Trichlorobenzene	ND	ug/kg	11.				
1,2,4-Trichlorobenzene	ND	ug/kg	11.				
1,3,5-Trimethylbenzene	ND	ug/kg	11.				
1,2,4-Trimethylbenzene	ND	ug/kg	11.				
trans-1,4-Dichloro-2-butene	ND	ug/kg	11.				
Ethyl ether	ND	ug/kg	11.				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	118.	%	
Toluene-d8	97.0	%	
4-Bromofluorobenzene	104.	%	
Dibromofluoromethane	100.	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0211671-08
GP-3-4-8'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		1116 01:08	MM

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Yes (Covering the Soil)
Methanol ratio: 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
VPH Standard analysis reports only range data with no adjustments.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

PARAMETER	RESULT	UNITS	RDL
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.17
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.17
C9-C10 Aromatics	ND	mg/kg	2.17

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	77.0	%	70-130
2,5-Dibromotoluene-FID	78.0	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0211671-08
GP-3-4-8'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	1115 09:45	1119 00 41	PD

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

PARAMETER	RESULT	UNITS	RDL
C9-C18 Aliphatics	ND	mg/kg	10.4
C19-C36 Aliphatics	ND	mg/kg	10.4
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.4
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.4
Naphthalene	ND	mg/kg	0.521
2-Methylnaphthalene	ND	mg/kg	0.521
Acenaphthylene	ND	mg/kg	0.521
Acenaphthene	ND	mg/kg	0.521
Fluorene	ND	mg/kg	0.521
Phenanthrene	ND	mg/kg	0.521
Anthracene	ND	mg/kg	0.521
Fluoranthene	ND	mg/kg	0.521
Pyrene	ND	mg/kg	0.521
Benzo(a)anthracene	ND	mg/kg	0.521
Chrysene	ND	mg/kg	0.521
Benzo(b)fluoranthene	ND	mg/kg	0.521
Benzo(k)fluoranthene	ND	mg/kg	0.521
Benzo(a)pyrene	ND	mg/kg	0.521
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.521
Dibenzo(a,h)anthracene	ND	mg/kg	0.521
Benzo(g,h,i)perylene	ND	mg/kg	0.521

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	82.0	%	40-140
o-Terphenyl	88.0	%	40-140
2-Fluorobiphenyl	83.0	%	40-140
2-Bromonaphthalene	76.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0211671-09
GP-4-8-12'
Sample Matrix: SOIL
Date Collected: 13-NOV-2002 14:00
Date Received : 14-NOV-2002
Date Reported : 21-NOV-2002
Condition of Sample: Satisfactory
Field Prep: None

Number & Type of Containers: 1-Amber,1-Plastic,3-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	92.	%	0.10	30 2540G		1115 14 48	BW
Volatile Organics 8260 via High 5035				1 8260B		1120 19 05	BT
Methylene chloride	ND	ug/kg	690				
1,1-Dichloroethane	ND	ug/kg	100				
Chloroform	ND	ug/kg	100				
Carbon tetrachloride	ND	ug/kg	69.				
1,2-Dichloropropane	ND	ug/kg	240				
Dibromochloromethane	ND	ug/kg	69				
1,1,2-Trichloroethane	ND	ug/kg	100				
Tetrachloroethene	ND	ug/kg	69.				
Chlorobenzene	ND	ug/kg	69.				
Trichlorofluoromethane	ND	ug/kg	340				
1,2-Dichloroethane	ND	ug/kg	69.				
1,1,1-Trichloroethane	ND	ug/kg	69.				
Bromodichloromethane	ND	ug/kg	69				
trans-1,3-Dichloropropene	ND	ug/kg	69				
cis-1,3-Dichloropropene	ND	ug/kg	69				
1,1-Dichloropropene	ND	ug/kg	340				
Bromoform	ND	ug/kg	280				
1,1,2,2-Tetrachloroethane	ND	ug/kg	69.				
Benzene	ND	ug/kg	69				
Toluene	ND	ug/kg	100				
Ethylbenzene	ND	ug/kg	69.				
Chloromethane	ND	ug/kg	340				
Bromomethane	ND	ug/kg	140				
Vinyl chloride	ND	ug/kg	140				
Chloroethane	ND	ug/kg	140				
1,1-Dichloroethene	ND	ug/kg	69				
trans-1,2-Dichloroethene	ND	ug/kg	100				
Trichloroethene	ND	ug/kg	69				
1,2-Dichlorobenzene	ND	ug/kg	340				
1,3-Dichlorobenzene	ND	ug/kg	340				
1,4-Dichlorobenzene	ND	ug/kg	340				
Methyl tert butyl ether	ND	ug/kg	140				
p/m-Xylene	ND	ug/kg	69.				
o-Xylene	ND	ug/kg	69.				
cis-1,2-Dichloroethene	ND	ug/kg	69				
Dibromomethane	ND	ug/kg	690				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0211671-09
GP-4-8-12'

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics 8260 via High 5035 continued				1	8260B		1120 19:05	BT
1,4-Dichlorobutane	ND	ug/kg	690					
Iodomethane	ND	ug/kg	690					
1,2,3-Trichloropropane	ND	ug/kg	690					
Styrene	ND	ug/kg	69.					
Dichlorodifluoromethane	ND	ug/kg	690					
Acetone	ND	ug/kg	690					
Carbon disulfide	ND	ug/kg	690					
2-Butanone	ND	ug/kg	690					
Vinyl acetate	ND	ug/kg	690					
4-Methyl-2-pentanone	ND	ug/kg	690					
2-Hexanone	ND	ug/kg	690					
Ethyl methacrylate	ND	ug/kg	690					
Acrolein	ND	ug/kg	1700					
Acrylonitrile	ND	ug/kg	690					
Bromochloromethane	ND	ug/kg	340					
Tetrahydrofuran	ND	ug/kg	1400					
2,2-Dichloropropane	ND	ug/kg	340					
1,2-Dibromoethane	ND	ug/kg	340					
1,3-Dichloropropane	ND	ug/kg	340					
1,1,1,2-Tetrachloroethane	ND	ug/kg	69.					
Bromobenzene	ND	ug/kg	340					
n-Butylbenzene	ND	ug/kg	69.					
sec-Butylbenzene	ND	ug/kg	69.					
tert-Butylbenzene	ND	ug/kg	340					
o-Chlorotoluene	ND	ug/kg	340					
p-Chlorotoluene	ND	ug/kg	340					
1,2-Dibromo-3-chloropropane	ND	ug/kg	340					
Hexachlorobutadiene	ND	ug/kg	340					
Isopropylbenzene	ND	ug/kg	69.					
p-Isopropyltoluene	ND	ug/kg	69.					
Naphthalene	ND	ug/kg	340					
n-Propylbenzene	ND	ug/kg	69.					
1,2,3-Trichlorobenzene	ND	ug/kg	340					
1,2,4-Trichlorobenzene	ND	ug/kg	340					
1,3,5-Trimethylbenzene	ND	ug/kg	340					
1,2,4-Trimethylbenzene	ND	ug/kg	340					
trans-1,4-Dichloro-2-butene	ND	ug/kg	340					
Ethyl ether	ND	ug/kg	340					

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	110.	%	
Toluene-d8	107.	%	
4-Bromofluorobenzene	95.0	%	
Dibromofluoromethane	95.0	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0211671-09
GP-4-8-12'

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47	98-1		1116 01:58	MM

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Yes (Covering the Soil)
Methanol ratio: 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
VPH Standard analysis reports only range data with no adjustments.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.76
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.76
C9-C10 Aromatics	ND	mg/kg	2.76

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	79.0	%	70-130
2,5-Dibromotoluene-FID	77.0	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0211671-09
GP-4-8-12'

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46	98-1	1115 09:45	1119 01:30	PD

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	10.9
C19-C36 Aliphatics	ND	mg/kg	10.9
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.9
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.9
Naphthalene	ND	mg/kg	0.543
2-Methylnaphthalene	ND	mg/kg	0.543
Acenaphthylene	ND	mg/kg	0.543
Acenaphthene	ND	mg/kg	0.543
Fluorene	ND	mg/kg	0.543
Phenanthrene	ND	mg/kg	0.543
Anthracene	ND	mg/kg	0.543
Fluoranthene	ND	mg/kg	0.543
Pyrene	ND	mg/kg	0.543
Benzo(a)anthracene	ND	mg/kg	0.543
Chrysene	ND	mg/kg	0.543
Benzo(b)fluoranthene	ND	mg/kg	0.543
Benzo(k)fluoranthene	ND	mg/kg	0.543
Benzo(a)pyrene	ND	mg/kg	0.543
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.543
Dibenzo(a,h)anthracene	ND	mg/kg	0.543
Benzo(g,h,i)perylene	ND	mg/kg	0.543

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	82.0	%	40-140
o-Terphenyl	97.0	%	40-140
2-Fluorobiphenyl	93.0	%	40-140
2-Bromonaphthalene	92.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number:	L0211671-10 GP-5-4-8'	**Date Collected:**	13-NOV-2002 14:50
		Date Received :	14-NOV-2002
Sample Matrix:	SOIL	**Date Reported :**	21-NOV-2002
Condition of Sample:	Satisfactory	**Field Prep:**	None

Number & Type of Containers: 1-Amber,1-Plastic,3-Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	92.	%	0.10	30	2540G		1115 14:48	SW
Volatile Organics 8260 via High 5035				1	8260B		1120 19:51	BT
Methylene chloride	ND	ug/kg	480					
1,1-Dichloroethane	ND	ug/kg	72.					
Chloroform	ND	ug/kg	72.					
Carbon tetrachloride	ND	ug/kg	48.					
1,2-Dichloropropane	ND	ug/kg	170					
Dibromochloromethane	ND	ug/kg	48.					
1,1,2-Trichloroethane	ND	ug/kg	72.					
Tetrachloroethene	ND	ug/kg	48.					
Chlorobenzene	ND	ug/kg	48.					
Trichlorofluoromethane	ND	ug/kg	240					
1,2-Dichloroethane	ND	ug/kg	48.					
1,1,1-Trichloroethane	ND	ug/kg	48.					
Bromodichloromethane	ND	ug/kg	48.					
trans-1,3-Dichloropropene	ND	ug/kg	48.					
cis-1,3-Dichloropropene	ND	ug/kg	48.					
1,1-Dichloropropene	ND	ug/kg	240					
Bromoform	ND	ug/kg	190					
1,1,2,2-Tetrachloroethane	ND	ug/kg	48.					
Benzene	ND	ug/kg	48.					
Toluene	ND	ug/kg	72.					
Ethylbenzene	ND	ug/kg	48.					
Chloromethane	ND	ug/kg	240					
Bromomethane	ND	ug/kg	95.					
Vinyl chloride	ND	ug/kg	95.					
Chloroethane	ND	ug/kg	95.					
1,1-Dichloroethene	ND	ug/kg	48.					
trans-1,2-Dichloroethene	ND	ug/kg	72.					
Trichloroethene	ND	ug/kg	48.					
1,2-Dichlorobenzene	ND	ug/kg	240					
1,3-Dichlorobenzene	ND	ug/kg	240					
1,4-Dichlorobenzene	ND	ug/kg	240					
Methyl tert butyl ether	ND	ug/kg	95.					
p/m-Xylene	ND	ug/kg	48.					
o-Xylene	ND	ug/kg	48.					
cis-1,2-Dichloroethene	ND	ug/kg	48.					
Dibromomethane	ND	ug/kg	480					

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0211671-10
GP-5-4-8'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics 8260 via High 5035 continued				1 8260B		1120 19:51	BT
1,4 Dichlorobutane	ND	ug/kg	480				
Iodomethane	ND	ug/kg	480				
1,2,3-Trichloropropane	ND	ug/kg	480				
Styrene	ND	ug/kg	48.				
Dichlorodifluoromethane	ND	ug/kg	480				
Acetone	ND	ug/kg	480				
Cerbon disulfide	ND	ug/kg	480				
2-Butanone	ND	ug/kg	480				
Vinyl ecetate	ND	ug/kg	480				
4-Methyl-2-pentanone	ND	ug/kg	480				
2-Hexanone	ND	ug/kg	480				
Ethyl methacrylate	ND	ug/kg	480				
Acrolein	ND	ug/kg	1200				
Acrylonitrile	ND	ug/kg	480				
Bromochloromethane	ND	ug/kg	240				
Tatrahydrofuran	ND	ug/kg	950				
2,2-Dichloropropane	ND	ug/kg	240				
1,2-Dibromoethane	ND	ug/kg	240				
1,3-Dichloropropane	ND	ug/kg	240				
1,1,1,2-Tetrachloroethane	ND	ug/kg	48.				
Bromobenzene	ND	ug/kg	240				
n-Butylbenzene	ND	ug/kg	48.				
sec-Butylbenzene	ND	ug/kg	48.				
tert-Butylbenzene	ND	ug/kg	240				
o-Chlorotoluene	ND	ug/kg	240				
p-Chlorotoluene	ND	ug/kg	240				
1,2-Dibromo-3-chloropropana	ND	ug/kg	240				
Haxachlorobutadiane	ND	ug/kg	240				
Isopropylbenzene	ND	ug/kg	48.				
p-Iaopropyltoluene	ND	ug/kg	48.				
Naphthalene	ND	ug/kg	240				
n-Propylbenzene	ND	ug/kg	48.				
1,2,3-Trichlorobenzene	ND	ug/kg	240				
1,2,4-Trichlorobenzene	ND	ug/kg	240				
1,3,5-Trimethylbenzene	ND	ug/kg	240				
1,2,4-Trimethylbanzene	ND	ug/kg	240				
trana-1,4-Dichloro-2-butene	ND	ug/kg	240				
Ethyl ether	ND	ug/kg	240				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	112.	%	
Toluene-d8	109.	%	
4-Bromofluorobenzene	102.	%	
Dibromofluoromethane	95.0	%	

Commants: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laborstory Sample Number: L0211671-10
GP-5-4-8'

PARAMETER	RESULT	UNITS	RDL	REF METBOD	DATE		ID
					PREP	ANAL	
Volatile Petroleum Hydrocarbona				47 98-1		1116 02:48	MM

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were aamplea received in methanol? Yes (Covering the Soil)
Methanol ratio: 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Ware all performance/acceptance standards for the raquired proceduras achieved? YES
Were significant modifications mada to tha method es epecified in Sact 11.3? NO
Please note to subtract the method blank from the statad result.
VPH Standard anslysis reports only range data with no adjustments.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

PARAMETER	RESULT	UNITS	RDL
C5-C8 Aliphatica, Unadjusted	ND	mg/kg	1.91
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	1.91
C9-C10 Aromatica	ND	mg/kg	1.91

Surrogate(s)	Racovery		QC Criterie
2,5-Dibromotoluane-PID	71.0	%	70-130
2,5-Dibromotoluene-PID	71.0	%	70-130

Commenta: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboretory Sample Number: L0211671-10
GP-5-4-8'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Extracteble Petroleum Hydrocarbons				46 98-1	1115 09:45	1119 02:18	PD

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedurea REQUIRED by the method followed? YES
Were all performance/acceptance atandards for the required procedures achieved? YES
Were aignificant modificationa made to the method as specified in Sect 11.3? NO
Pleaae note to subtract the method blank from the stated result.
Tha normal acceptance ranga for the extraction surrogatea, Chloro-octadecane and o-Terphenyl, ia 40-140%.
The normal acceptanca range for the fractionstion surrogatea, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

PARAMETER	RESULT	UNITS	RDL
C9-C18 Aliphatics	ND	mg/kg	10 9
C19-C36 Aliphatica	ND	mg/kg	10.9
C11-C22 Aromatics, Unedjuated	ND	mg/kg	10.9
C11-C22 Aromatics, Adjusted	ND	mg/kg	10 9
Naphthalene	ND	mg/kg	0.543
2-Methylnaphthalene	ND	mg/kg	0.543
Acenaphthylene	ND	mg/kg	0.543
Acenaphthene	ND	mg/kg	0.543
Fluorene	ND	mg/kg	0.543
Phenanthrene	ND	mg/kg	0.543
Anthracene	ND	mg/kg	0.543
Fluoranthene	ND	mg/kg	0.543
Pyrene	ND	mg/kg	0.543
Benzo(a)anthracene	ND	mg/kg	0.543
Chrysene	ND	mg/kg	0.543
Benzo(b)fluoranthene	ND	mg/kg	0.543
Benzo(k)fluoranthene	ND	mg/kg	0.543
Benzo(a)pyrene	ND	mg/kg	0.543
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.543
Dibenzo(a,h)anthracene	ND	mg/kg	0.543
Benzo(g,h,i)perylene	ND	mg/kg	0.543

Surrogate(a)	Racovery		QC Criteria
Chloro-Octadecana	80.0	%	40-140
o-Terphenyl	80.0	%	40-140
2-Fluorobiphenyl	69.0	%	40-140
2-Bromonaphthalene	68.0	%	40-140

Comments Complete list of References and Gloasary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0211671-11
TRIP BLANK
Sample Metrix: SOIL
Dste Collected: 11-NOV-2002 18:00
Date Received : 14-NOV-2002
Dete Reported : 21-NOV-2002

Condition of Sample: Satisfactory
Field Prep: None

Number & Type of Containere: 1-Vial

Commente:
Resulta are reported on an 'AS RECEIVED' basia.

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organica 8260 via Low 5035				1 8260B		1119 21:16	BT
Methylene chloride	ND	ug/kg	10.				
1,1-Dichloroethane	ND	ug/kg	1 5				
Chloroform	ND	ug/kg	1.5				
Csrbon tetrschloride	ND	ug/kg	1.0				
1,2-Dichloropropane	ND	ug/kg	3.5				
Dibromochloromethane	ND	ug/kg	1.0				
1,1,2-Trichloroethane	ND	ug/kg	1.5				
Tetrachloroethene	ND	ug/kg	1.0				
Chlorobenzana	ND	ug/kg	1 0				
Trichlorofluoromethene	ND	ug/kg	5.0				
1,2-Dichloroethane	ND	ug/kg	1.0				
1,1,1-Trichloroethane	ND	ug/kg	1.0				
Bromodichloromethane	ND	ug/kg	1.0				
trsns-1,3-Dichloropropene	ND	ug/kg	1.0				
cis-1,3-Dichloropropene	ND	ug/kg	1.0				
1,1-Dichloropropena	ND	ug/kg	5.0				
Bromoform	ND	ug/kg	4.0				
1,1,2,2-Tetrachloroethane	ND	ug/kg	1.0				
Benzena	ND	ug/kg	1.0				
Toluene	ND	ug/kg	1.5				
Ethylbenzena	ND	ug/kg	1.0				
Chloromethane	ND	ug/kg	5.0				
Bromomethane	ND	ug/kg	2 0				
Vinyl chloride	ND	ug/kg	2.0				
Chloroethane	ND	ug/kg	2.0				
1,1-Dichloroethene	ND	ug/kg	1.0				
trans-1,2-Dichloroethene	ND	ug/kg	1.5				
Trichloroethene	ND	ug/kg	1.0				
1,2-Dichlorobenzene	ND	ug/kg	5.0				
1,3-Dichlorobenzene	ND	ug/kg	5 0				
1,4-Dichlorobenzene	ND	ug/kg	5 0				
Methyl tert butyl ether	ND	ug/kg	2.0				
p/m-Xylene	ND	ug/kg	1.0				
o-Xylene	ND	ug/kg	1.0				
cis-1,2-Dichloroethene	ND	ug/kg	1.0				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0211671-11
TRIP BLANK

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics 8260 via Low 5035 continued				1 8260B		1119 21:16	BT
Dibromomethane	ND	ug/kg	10.				
1,4-Dichlorobutane	ND	ug/kg	10.				
Iodomethane	ND	ug/kg	10.				
1,2,3-Trichloropropane	ND	ug/kg	10.				
Styrene	ND	ug/kg	1.0				
Dichlorodifluoromethane	ND	ug/kg	10.				
Acetone	ND	ug/kg	10.				
Carbon disulfide	ND	ug/kg	10.				
2-Butanone	ND	ug/kg	10.				
Vinyl acetate	ND	ug/kg	10.				
4-Methyl-2-pentanone	ND	ug/kg	10.				
2-Hexanone	ND	ug/kg	10.				
Ethyl methacrylate	ND	ug/kg	10.				
Acrolein	ND	ug/kg	25.				
Acrylonitrile	ND	ug/kg	10.				
Bromochloromethane	ND	ug/kg	5.0				
Tetrahydrofuran	ND	ug/kg	20.				
2,2-Dichloropropane	ND	ug/kg	5.0				
1,2-Dibromoethane	ND	ug/kg	5.0				
1,3-Dichloropropane	ND	ug/kg	5.0				
1,1,1,2-Tetrachloroethane	ND	ug/kg	1.0				
Bromobenzene	ND	ug/kg	5.0				
n-Butylbenzene	ND	ug/kg	1.0				
sec-Butylbenzene	ND	ug/kg	1.0				
tert-Butylbenzene	ND	ug/kg	5.0				
o-Chlorotoluene	ND	ug/kg	5.0				
p-Chlorotoluene	ND	ug/kg	5.0				
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0				
Hexachlorobutadiene	ND	ug/kg	5.0				
Isopropylbenzene	ND	ug/kg	1.0				
p-Isopropyltoluene	ND	ug/kg	1.0				
Naphthalene	ND	ug/kg	5.0				
n-Propylbenzene	ND	ug/kg	1.0				
1,2,3-Trichlorobenzene	ND	ug/kg	5.0				
1,2,4-Trichlorobenzene	ND	ug/kg	5.0				
1,3,5-Trimethylbenzene	ND	ug/kg	5.0				
1,2,4-Trimethylbenzene	ND	ug/kg	5.0				
trans-1,4-Dichloro-2-butene	ND	ug/kg	5.0				
Ethyl ether	ND	ug/kg	5.0				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	124.	%	
Toluene-d8	106.	%	
4-Bromofluorobenzene	106.	%	
Dibromofluoromethane	102.	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0211671-12
TRIP BLANK
Sample Matrix: WATER
Date Collected: 19-APR-2002 13:10
Date Received : 14-NOV-2002
Date Reported : 21-NOV-2002

Condition of Sample: Satisfactory
Field Prep: None

Number & Type of Containers: 1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 96-1		1115 17:33	MM

Quality Control Information

Condition of sample received:	Satisfactory	
Aqueous preservative:	Laboratory Provided Preserved Container	
Sample temperature upon receipt:	Received on Ice	
Were all QA/QC procedures REQUIRED by the method followed?		YES
Were all performance/acceptance standards for the required procedures achieved?		YES
Were significant modifications made to the method as specified in Sect 11.3?		NO

Please note to subtract the method blank from the stated result.
VPH Standard analysis reports only range data with no adjustments.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C10 Aromatics	ND	ug/l	40.0

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	88.0	%	70-130
2,5-Dibromotoluene-FID	88.0	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0211671-13
TRIP BLANK
Sample Matrix: WATER
Date Collected: 14-NOV-2002 15:00
Date Received : 14-NOV-2002
Date Reported : 21-NOV-2002

Condition of Sample: Satisfactory
Field Prep: None

Number & Type of Containers: 1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260				1 8260B		1118 20:54	AR
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
Trichlorofluoromethane	ND	ug/l	2.5				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
1,1-Dichloropropene	ND	ug/l	2.5				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Benzene	ND	ug/l	0.50				
Toluene	ND	ug/l	0.75				
Ethylbenzene	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Bromomethane	ND	ug/l	1.0				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4 Dichlorobenzene	ND	ug/l	2.5				
Methyl tert butyl ether	ND	ug/l	1.0				
p/m-Xylene	ND	ug/l	0.50				
o-Xylene	ND	ug/l	0.50				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dibromomethane	ND	ug/l	5.0				
1,4-Dichlorobutane	ND	ug/l	5.0				
Iodomethane	ND	ug/l	5.0				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0211671-13
TRIP BLANK

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260 continued				1 8260B		1118 20:54	AR
1,2,3-Trichloropropane	ND	ug/l	5.0				
Styrene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
Acetone	ND	ug/l	5.0				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	5.0				
Vinyl acetate	ND	ug/l	5.0				
4-Methyl-2-pentanone	ND	ug/l	5.0				
2-Hexanone	ND	ug/l	5.0				
Ethyl methacrylate	ND	ug/l	5.0				
Acrolein	ND	ug/l	12.				
Acrylonitrile	ND	ug/l	5.0				
Bromochloromethane	ND	ug/l	2.5				
Tetrahydrofuran	ND	ug/l	10.				
2,2-Dichloropropane	ND	ug/l	2.5				
1,2-Dibromoethane	ND	ug/l	2.5				
1,3-Dichloropropane	ND	ug/l	2.5				
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50				
Bromobenzene	ND	ug/l	2.5				
n-Butylbenzene	ND	ug/l	0.50				
sec-Butylbenzene	ND	ug/l	0.50				
tert-Butylbenzene	ND	ug/l	2.5				
o-Chlorotoluene	ND	ug/l	2.5				
p-Chlorotoluene	ND	ug/l	2.5				
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5				
Hexachlorobutadiene	ND	ug/l	2.5				
Isopropylbenzene	ND	ug/l	0.50				
p-Isopropyltoluene	ND	ug/l	0.50				
Naphthalene	ND	ug/l	2.5				
n-Propylbenzene	ND	ug/l	0.50				
1,2,3-Trichlorobenzene	ND	ug/l	2.5				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				
1,3,5-Trimethylbenzene	ND	ug/l	2.5				
1,2,4-Trimethylbenzene	ND	ug/l	2.5				
trans-1,4-Dichloro-2-butene	ND	ug/l	2.5				
Ethyl ether	ND	ug/l	2.5				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	109.	%	
Toluene-d8	100.	%	
4-Bromofluorobenzene	102.	%	
Dibromofluoromethane	108.	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0211671

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 06-10 (L0211671-06, WG127679)					
Solids, Total	91.	92.	%	1	
Volatile Organics 8260 via Low 5035 for sample(s) 07-08,11 (L0211548-03, WG127649)					
Methylene chloride	ND	ND	ug/kg	NC	
1,1-Dichloroethane	ND	ND	ug/kg	NC	
Chloroform	ND	ND	ug/kg	NC	
Carbon tetrachloride	ND	ND	ug/kg	NC	
1,2-Dichloropropane	ND	ND	ug/kg	NC	
Dibromochloromethane	ND	ND	ug/kg	NC	
1,1,2-Trichloroethane	ND	ND	ug/kg	NC	
Tetrachloroethene	ND	ND	ug/kg	NC	
Chlorobenzene	ND	ND	ug/kg	NC	
Trichlorofluoromethane	ND	ND	ug/kg	NC	
1,2-Dichloroethane	ND	ND	ug/kg	NC	
1,1,1-Trichloroethane	ND	ND	ug/kg	NC	
Bromodichloromethane	ND	ND	ug/kg	NC	
trans-1,3-Dichloropropene	ND	ND	ug/kg	NC	
cis-1,3-Dichloropropene	ND	ND	ug/kg	NC	
1,1-Dichloropropene	ND	ND	ug/kg	NC	
Bromoform	ND	ND	ug/kg	NC	
1,1,2,2-Tetrachloroethane	ND	ND	ug/kg	NC	
Benzene	ND	ND	ug/kg	NC	
Toluene	ND	ND	ug/kg	NC	
Ethylbenzene	ND	ND	ug/kg	NC	
Chloromethane	ND	ND	ug/kg	NC	
Bromomethane	ND	ND	ug/kg	NC	
Vinyl chloride	ND	ND	ug/kg	NC	
Chloroethane	ND	ND	ug/kg	NC	
1,1-Dichloroethene	ND	ND	ug/kg	NC	
trans-1,2-Dichloroethene	ND	ND	ug/kg	NC	
Trichloroethene	ND	ND	ug/kg	NC	
1,2-Dichlorobenzene	ND	ND	ug/kg	NC	
1,3-Dichlorobenzene	ND	ND	ug/kg	NC	
1,4-Dichlorobenzene	ND	ND	ug/kg	NC	
Methyl tert butyl ether	ND	ND	ug/kg	NC	
p/m-Xylene	ND	ND	ug/kg	NC	
o-Xylene	ND	ND	ug/kg	NC	
cis-1,2-Dichloroethene	ND	ND	ug/kg	NC	
Dibromomethane	ND	ND	ug/kg	NC	
1,4-Dichlorobutane	ND	ND	ug/kg	NC	
Iodomethane	ND	ND	ug/kg	NC	
1,2,3-Trichloropropane	ND	ND	ug/kg	NC	
Styrene	ND	ND	ug/kg	NC	
Dichlorodifluoromethane	ND	ND	ug/kg	NC	
Acetone	ND	ND	ug/kg	NC	
Carbon disulfide	ND	ND	ug/kg	NC	
2-Butanone	ND	ND	ug/kg	NC	
Vinyl acetate	ND	ND	ug/kg	NC	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0211671

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Volatile Organics 8260 via Low 5035 for sample(s) 07-08,11 (L0211548-03, WG127649)					
4-Methyl-2-pentanone	ND	ND	ug/kg	NC	
2-Hexanone	ND	ND	ug/kg	NC	
Ethyl methacrylate	ND	ND	ug/kg	NC	
Acrolein	ND	ND	ug/kg	NC	
Acrylonitrile	ND	ND	ug/kg	NC	
Bromochloromethane	ND	ND	ug/kg	NC	
Tetrahydrofuran	ND	ND	ug/kg	NC	
2,2-Dichloropropane	ND	ND	ug/kg	NC	
1,2-Dibromoethane	ND	ND	ug/kg	NC	
1,3-Dichloropropane	ND	ND	ug/kg	NC	
1,1,1,2-Tetrachloroethane	ND	ND	ug/kg	NC	
Bromobenzene	ND	ND	ug/kg	NC	
n-Butylbenzene	ND	ND	ug/kg	NC	
sec-Butylbenzene	ND	ND	ug/kg	NC	
tert-Butylbenzene	ND	ND	ug/kg	NC	
o-Chlorotoluene	ND	ND	ug/kg	NC	
p-Chlorotoluene	ND	ND	ug/kg	NC	
1,2-Dibromo-3-chloropropane	ND	ND	ug/kg	NC	
Hexachlorobutadiene	ND	ND	ug/kg	NC	
Isopropylbenzene	ND	ND	ug/kg	NC	
p-Isopropyltoluene	ND	ND	ug/kg	NC	
Naphthalene	ND	ND	ug/kg	NC	
n-Propylbenzene	ND	ND	ug/kg	NC	
1,2,3-Trichlorobenzene	ND	ND	ug/kg	NC	
1,2,4-Trichlorobenzene	ND	ND	ug/kg	NC	
1,3,5-Trimethylbenzene	ND	ND	ug/kg	NC	
1,2,4-Trimethylbenzene	ND	ND	ug/kg	NC	
trans-1,4-Dichloro-2-butene	ND	ND	ug/kg	NC	
Ethyl ether	ND	ND	ug/kg	NC	
Surrogate(s)	Recovery				QC Criteria
1,2-Dichloroethane-d4	121.	127.	%	5	
Toluene-d8	106.	111.	%	5	
4-Bromofluorobenzene	103.	104.	%	1	
Dibromofluoromethane	104.	108.	%	4	
Extractable Petroleum Hydrocarbons for sample(s) 01-02,04-05 (L0211659-01, WG127660)					
C9-C18 Aliphatics	ND	ND	ug/l	NC	50
C19-C36 Aliphatics	ND	ND	ug/l	NC	50
C11-C22 Aromatics	ND	ND	ug/l	NC	50
C11-C22 Aromatics, Adjusted	ND	ND	ug/l	NC	50
Naphthalene	ND	ND	ug/l	NC	50
2-Methylnaphthalene	ND	ND	ug/l	NC	50
Acenaphthylene	ND	ND	ug/l	NC	50
Acenaphthene	ND	ND	ug/l	NC	50
Fluorene	ND	ND	ug/l	NC	50
Phenanthrene	ND	ND	ug/l	NC	50
Anthracene	ND	ND	ug/l	NC	50

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0211671

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Extractable Petroleum Hydrocarbons for sample(s) 01-02,04-05 (L0211659-01, WG127660)					
Fluoranthene	ND	ND	ug/l	NC	50
Pyrene	ND	ND	ug/l	NC	50
Benzo(a)anthracene	ND	ND	ug/l	NC	50
Chrysene	ND	ND	ug/l	NC	50
Benzo(b)fluoranthene	ND	ND	ug/l	NC	50
Benzo(k)fluoranthene	ND	ND	ug/l	NC	50
Benzo(a)pyrene	ND	ND	ug/l	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	ug/l	NC	50
Dibenzo(a,h)anthracene	ND	ND	ug/l	NC	50
Benzo(ghi)perylene	ND	ND	ug/l	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	69.0	58.0	%	17	40-140
o-Terphenyl	77.0	60.0	%	25	40-140
2-Fluorobiphenyl	76.0	63.0	%	19	40-140
2-Bromonaphthalene	68.0	55.0	%	21	40-140
Volatile Petroleum Hydrocarbons for sample(s) 06-10 (L0211548-03, WG127534)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9-C10 Aromatics	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	87.0	93.0	%	7	70-130
2,5-Dibromotoluene-FID	87.0	88.0	%	1	70-130
Volatile Petroleum Hydrocarbons for sample(s) 01-02,05 (L0211671-05, WG127756)					
C5-C8 Aliphatics	ND	ND	ug/l	NC	50
C9-C12 Aliphatics	ND	ND	ug/l	NC	50
C9-C10 Aromatics	ND	ND	ug/l	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	87.0	84.0	%	4	70-130
2,5-Dibromotoluene-FID	84.0	79.0	%	6	70-130
Volatile Petroleum Hydrocarbons for sample(s) 03-04,12 (L0211612-01, WG127648)					
C5-C8 Aliphatics	ND	ND	ug/l	NC	50
C9-C12 Aliphatics	ND	ND	ug/l	NC	50
C9-C10 Aromatics	ND	ND	ug/l	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	105.	93.0	%	12	70-130
2,5-Dibromotoluene-FID	90.0	88.0	%	2	70-130
Extractable Petroleum Hydrocarbons for sample(s) 06-10 (L0211671-06, WG127645)					
C9-C18 Aliphatics	ND	ND	mg/kg	NC	50
C19-C36 Aliphatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics	ND	ND	mg/kg	NC	50

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0211671

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Extractable Petroleum Hydrocarbons for sample(s) 06-10 (L0211671-06, WG127645)					
C11-C22 Aromatics, Adjusted	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
2-Methylnaphthalene	ND	ND	mg/kg	NC	50
Acenaphthylene	ND	ND	mg/kg	NC	50
Acenaphthene	ND	ND	mg/kg	NC	50
Fluorene	ND	ND	mg/kg	NC	50
Phenanthrene	ND	ND	mg/kg	NC	50
Anthracene	ND	ND	mg/kg	NC	50
Fluoranthene	ND	ND	mg/kg	NC	50
Pyrene	ND	ND	mg/kg	NC	50
Benzo(a)anthracene	ND	ND	mg/kg	NC	50
Chrysene	ND	ND	mg/kg	NC	50
Benzo(b)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(k)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(a)pyrene	ND	ND	mg/kg	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	mg/kg	NC	50
Dibenzo(a,h)anthracene	ND	ND	mg/kg	NC	50
Benzo(ghi)perylene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	63.0	67.0	%	6	40-140
o-Terphenyl	76.0	81.0	%	6	40-140
2-Fluorobiphenyl	75.0	77.0	%	3	40-140
2-Bromonaphthalene	66.0	73.0	%	10	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0211671

Parameter	% Recovery	QC Criteria
Volatile Organics by GC/MS 8260 LCS for sample(s) 01-02,04-05,13 (WG127635)		
Chlorobenzene	101	
Benzene	108	
Toluene	99	
1,1-Dichloroethene	109	
Trichloroethene	106	
Surrogate(s)		
1,2-Dichloroethane-d4	110	
Toluene-d8	100	
4-Bromofluorobenzene	97	
Dibromofluoromethane	107	
Volatile Organics by GC/MS 8260 LCS for sample(s) 03 (WG127899)		
Chlorobenzene	101	
Benzene	108	
Toluene	99	
1,1-Dichloroethene	109	
Trichloroethene	106	
Surrogate(s)		
1,2-Dichloroethane-d4	110	
Toluene-d8	100	
4-Bromofluorobenzene	97	
Dibromofluoromethane	107	
Volatile Organics 8260 via Low 5035 LCS for sample(s) 07-08,11 (WG127649)		
Chlorobenzene	99	
Benzene	96	
Toluene	97	
1,1-Dichloroethene	97	
Trichloroethene	98	
Surrogate(s)		
1,2-Dichloroethane-d4	101	
Toluene-d8	99	
4-Bromofluorobenzene	95	
Dibromofluoromethane	96	
Volatile Organics 8260 via High 5035 LCS for sample(s) 06,09-10 (WG128116)		
Chlorobenzene	94	
Benzene	94	
Toluene	96	
1,1-Dichloroethene	98	
Trichloroethene	99	
Surrogate(s)		
1,2-Dichloroethane-d4	117	
Toluene-d8	101	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0211671
Continued

Parameter	% Recovery	QC Criteria
Volatile Organics 8260 via High 5035 LCS for sample(s) 06,09-10 (WG128116)		
4-Bromofluorobenzene	97	
Dibromofluoromethane	104	
Extractable Petroleum Hydrocarbons LCS for sample(s) 01-02,04-05 (WG127660)		
Naphthalene	59	40-140
Acenaphthene	67	40-140
Anthracene	86	40-140
Pyrene	90	40-140
Chrysene	92	40-140
Nonane (C9)	54	40-140
Tetradecane (C14)	73	40-140
Nonadecane (C19)	86	40-140
Eicosane (C20)	85	40-140
Octacosane (C28)	87	40-140
Surrogate(s)		
Chloro-Octadecane	74	40-140
o-Terphenyl	89	40-140
2-Fluorobiphenyl	81	40-140
2-Bromonaphthalene	73	40-140
Volatile Petroleum Hydrocarbons LCS for sample(s) 06-10 (WG127534)		
Benzene	96	70-130
Toluene	85	70-130
Ethylbenzene	91	70-130
p/m-Xylene	86	70-130
o-Xylene	90	70-130
Methyl tert butyl ether	83	70-130
Naphthalene	74	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	87	70-130
2,5-Dibromotoluene-FID	81	70-130
Volatile Petroleum Hydrocarbons LCS for sample(s) 01-02,05 (WG127756)		
Benzene	105	70-130
Toluene	96	70-130
Ethylbenzene	103	70-130
p/m-Xylene	95	70-130
o-Xylene	99	70-130
Methyl tert butyl ether	98	70-130
Naphthalene	89	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	109	70-130
2,5-Dibromotoluene-FID	99	70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0211671
Continued

Parameter	% Recovery	QC Criteria
Volatile Petroleum Hydrocarbons LCS for sample(s) 03-04,12 (WG127648)		
Benzene	101	70-130
Toluene	90	70-130
Ethylbenzene	99	70-130
p/m-Xylene	90	70-130
o-Xylene	94	70-130
Methyl tert butyl ether	99	70-130
Naphthalene	89	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	92	70-130
2,5-Dibromotoluene-FID	85	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 06-10 (WG127645)		
Naphthalene	63	40-140
Acenaphthene	74	40-140
Anthracene	86	40-140
Pyrene	84	40-140
Chrysene	86	40-140
Nonane (C9)	54	40-140
Tetradecane (C14)	70	40-140
Nonadecane (C19)	75	40-140
Eicosane (C20)	76	40-140
Octacosane (C28)	78	40-140
Surrogate(s)		
Chloro-Octadecane	66	40-140
o-Terphenyl	83	40-140
2-Fluorobiphenyl	81	40-140
2-Bromonaphthalene	74	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH MS/MSD ANALYSIS

Laboratory Job Number: L0211671

Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
Volatile Organics by GC/MS 8260 for sample(s) 01-02,04-05,13 (L0211611-03, WG127635)					
Chlorobenzene	104	89	16		
Benzene	108	92	17		
Toluene	101	83	20		
1,1-Dichloroethene	111	91	19		
Trichloroethene	103	86	18		
Surrogate(s)					
1,2-Dichloroethane-d4	112	111	1		
Toluene-d8	102	101	1		
4-Bromofluorobenzene	95	95	0		
Dibromofluoromethane	107	107	0		
Volatile Organics by GC/MS 8260 for sample(s) 03 (L0211671-03, WG127899)					
Chlorobenzene	108	100	8		
Benzene	118	106	11		
Toluene	108	95	13		
1,1-Dichloroethene	129	111	15		
Trichloroethene	112	99	13		
Surrogate(s)					
1,2-Dichloroethane-d4	112	109	3		
Toluene-d8	101	101	0		
4-Bromofluorobenzene	96	97	1		
Dibromofluoromethane	109	107	2		
Volatile Organics 8260 via High 5035 for sample(s) 06,09-10 (L0211671-10, WG128116)					
Chlorobenzene	94	89	6		
Benzene	97	90	7		
Toluene	97	92	6		
1,1-Dichloroethene	101	94	7		
Trichloroethene	100	94	6		
Surrogate(s)					
1,2-Dichloroethane-d4	112	102	9		
Toluene-d8	105	103	2		
4-Bromofluorobenzene	97	92	5		
Dibromofluoromethane	105	98	7		
Extractable Petroleum Hydrocarbons for sample(s) 01-02,04-05 (L0211659-01, WG127660)					
Naphthalene	48	40	18	50	40-140
Acenaphthene	62	54	15	50	40-140
Anthracene	79	78	1	50	40-140
Pyrene	84	82	3	50	40-140
Chrysene	86	84	2	50	40-140
Nonane (C9)	44	43	3	50	40-140
Tetradecane (C14)	69	66	6	50	40-140
Nonadecane (C19)	83	86	3	50	40-140
Eicosane (C20)	82	85	4	50	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH MS/MSD ANALYSIS

Laboratory Job Number: L0211671

Continued

Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
Extractable Petroleum Hydrocarbons for sample(s) 01-02,04-05 (L0211659-01, WG127660)					
Octacosane (C28)	84	87	3	50	40-140
Surrogate(s)					
Chloro-Octadecane	65	74	13		40-140
o-Terphenyl	81	81	0		40-140
2-Fluorobiphenyl	75	71	5		40-140
2-Bromonaphthalene	68	61	11		40-140
Volatile Petroleum Hydrocarbons for sample(s) 06-10 (L0211548-03, WG127534)					
Methyl tert butyl ether	99	99	0	50	70-130
Benzene	106	110	4	50	70-130
Toluene	95	99	5	50	70-130
Ethylbenzene	104	104	0	50	70-130
p/m-Xylene	95	96	1	50	70-130
o-Xylene	99	103	4	50	70-130
Naphthalene	84	83	1	50	70-130
Surrogate(s)					
2,5-Dibromotoluene-PID	95	94	1		70-130
2,5-Dibromotoluene-FID	89	86	3		70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0211671

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-02,04-05,13 (WG127635-10)							
Volatile Organics by GC/MS 8260				1 8260B		1118 16:22 AM	
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
Trichlorofluoromethane	ND	ug/l	2.5				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
1,1-Dichloropropene	ND	ug/l	2.5				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Benzene	ND	ug/l	0.50				
Toluene	ND	ug/l	0.75				
Ethylbenzene	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Bromomethane	ND	ug/l	1.0				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
Methyl tert butyl ether	ND	ug/l	1.0				
p/m-Xylene	ND	ug/l	0.50				
o-Xylene	ND	ug/l	0.50				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dibromomethane	ND	ug/l	5.0				
1,4-Dichlorobutane	ND	ug/l	5.0				
Iodomethane	ND	ug/l	5.0				
1,2,3-Trichloropropane	ND	ug/l	5.0				
Styrene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
Acetone	ND	ug/l	5.0				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	5.0				
Vinyl acetate	ND	ug/l	5.0				
4-Methyl-2-pentanone	ND	ug/l	5.0				
2-Hexanone	ND	ug/l	5.0				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0211671

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-02,04-05,13 (WG127635-10)							
Volatile Organics by GC/MS 8260 continued				1 8260B		1118 16:22 AM	
Ethyl methacrylate	ND	ug/l	5.0				
Acrolein	ND	ug/l	12.				
Acrylonitrile	ND	ug/l	5.0				
Bromochloromethane	ND	ug/l	2.5				
Tetrahydrofuran	ND	ug/l	10.				
2,2-Dichloropropane	ND	ug/l	2.5				
1,2-Dibromoethane	ND	ug/l	2.5				
1,3-Dichloropropane	ND	ug/l	2.5				
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50				
Bromobenzene	ND	ug/l	2.5				
n-Butylbenzene	ND	ug/l	0.50				
sec-Butylbenzene	ND	ug/l	0.50				
tert-Butylbenzene	ND	ug/l	2.5				
o-Chlorotoluene	ND	ug/l	2.5				
p-Chlorotoluene	ND	ug/l	2.5				
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5				
Hexachlorobutadiene	ND	ug/l	2.5				
Isopropylbenzene	ND	ug/l	0.50				
p-Isopropyltoluene	ND	ug/l	0.50				
Naphthalene	ND	ug/l	2.5				
n-Propylbenzene	ND	ug/l	0.50				
1,2,3-Trichlorobenzene	ND	ug/l	2.5				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				
1,3,5-Trimethylbenzene	ND	ug/l	2.5				
1,2,4-Trimethylbenzene	ND	ug/l	2.5				
trans-1,4-Dichloro-2-butene	ND	ug/l	2.5				
Ethyl ether	ND	ug/l	2.5				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	109.	%					
Toluene-d8	100.	%					
4-Bromofluorobenzene	100.	%					
Dibromofluoromethane	107.	%					
Blank Analysis for sample(s) 03 (WG127899-4)							
Volatile Organics by GC/MS 8260				1 8260B		1118 16:22 AM	
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
Trichlorofluoromethane	ND	ug/l	2.5				
1,2-Dichloroethane	ND	ug/l	0.50				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0211671

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 03 (WG127899-4)							
Volatile Organics by GC/MS 8260 continued				1 8260B		1118 16:22 AM	
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
1,1-Dichloropropene	ND	ug/l	2.5				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Benzene	ND	ug/l	0.50				
Toluene	ND	ug/l	0.75				
Ethylbenzene	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Bromomethane	ND	ug/l	1.0				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
Methyl tert butyl ether	ND	ug/l	1.0				
p/m-Xylene	ND	ug/l	0.50				
o-Xylene	ND	ug/l	0.50				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dibromomethane	ND	ug/l	5.0				
1,4-Dichlorobutane	ND	ug/l	5.0				
Iodomethane	ND	ug/l	5.0				
1,2,3-Trichloropropane	ND	ug/l	5.0				
Styrene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
Acetone	ND	ug/l	5.0				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	5.0				
Vinyl acetate	ND	ug/l	5.0				
4-Methyl-2-pentanone	ND	ug/l	5.0				
2-Hexanone	ND	ug/l	5.0				
Ethyl methacrylate	ND	ug/l	5.0				
Acrolein	ND	ug/l	12.				
Acrylonitrile	ND	ug/l	5.0				
Bromochloromethane	ND	ug/l	2.5				
Tetrahydrofuran	ND	ug/l	10.				
2,2-Dichloropropane	ND	ug/l	2.5				
1,2-Dibromoethane	ND	ug/l	2.5				
1,3-Dichloropropane	ND	ug/l	2.5				
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50				
Bromobenzene	ND	ug/l	2.5				
n-Butylbenzene	ND	ug/l	0.50				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0211671

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 03 (WG127899-4)							
Volatile Organics by GC/MS 8260 continued				1 8260B		1118 16:22	AR
sec-Butylbenzene	ND	ug/l	0.50				
tert-Butylbenzene	ND	ug/l	2.5				
o-Chlorotoluene	ND	ug/l	2.5				
p-Chlorotoluene	ND	ug/l	2.5				
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5				
Hexachlorobutadiene	ND	ug/l	2.5				
Isopropylbenzene	ND	ug/l	0.50				
p-Isopropyltoluene	ND	ug/l	0.50				
Naphthalene	ND	ug/l	2.5				
n-Propylbenzene	ND	ug/l	0.50				
1,2,3-Trichlorobenzene	ND	ug/l	2.5				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				
1,3,5-Trimethylbenzene	ND	ug/l	2.5				
1,2,4-Trimethylbenzene	ND	ug/l	2.5				
trans-1,4-Dichloro-2-butene	ND	ug/l	2.5				
Ethyl ether	ND	ug/l	2.5				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	109.	%					
Toluene-d8	100.	%					
4-Bromofluorobenzene	100.	%					
Dibromofluoromethane	107.	%					
Blank Analysis for sample(s) 07-08,11 (WG127649-9)							
Volatile Organics 8260 via Low 5035				1 8260B		1119 15:12	BT
Methylene chloride	ND	ug/kg	10.				
1,1-Dichloroethane	ND	ug/kg	1.5				
Chloroform	ND	ug/kg	1.5				
Carbon tetrachloride	ND	ug/kg	1.0				
1,2-Dichloropropane	ND	ug/kg	3.5				
Dibromochloromethane	ND	ug/kg	1.0				
1,1,2-Trichloroethane	ND	ug/kg	1.5				
Tetrachloroethene	ND	ug/kg	1.0				
Chlorobenzene	ND	ug/kg	1.0				
Trichlorofluoromethane	ND	ug/kg	5.0				
1,2-Dichloroethane	ND	ug/kg	1.0				
1,1,1-Trichloroethane	ND	ug/kg	1.0				
Bromodichloromethane	ND	ug/kg	1.0				
trans-1,3-Dichloropropene	ND	ug/kg	1.0				
cis-1,3-Dichloropropene	ND	ug/kg	1.0				
1,1-Dichloropropene	ND	ug/kg	5.0				
Bromoform	ND	ug/kg	4.0				
1,1,2,2-Tetrachloroethane	ND	ug/kg	1.0				
Benzene	ND	ug/kg	1.0				
Toluene	ND	ug/kg	1.5				
Ethylbenzene	ND	ug/kg	1.0				
Chloromethane	ND	ug/kg	5.0				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0211671

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 07-08,11 (WG127649-9)							
Volatile Organics 8260 via Low 5035 continued				1 8260B		1119 15:12	BT
Bromomethane	ND	ug/kg	2.0				
Vinyl chloride	ND	ug/kg	2.0				
Chloroethane	ND	ug/kg	2.0				
1,1-Dichloroethene	ND	ug/kg	1.0				
trans-1,2-Dichloroethene	ND	ug/kg	1.5				
Trichloroethene	ND	ug/kg	1.0				
1,2-Dichlorobenzene	ND	ug/kg	5.0				
1,3-Dichlorobenzene	ND	ug/kg	5.0				
1,4-Dichlorobenzene	ND	ug/kg	5.0				
Methyl tert butyl ether	ND	ug/kg	2.0				
p/m-Xylene	ND	ug/kg	1.0				
o-Xylene	ND	ug/kg	1.0				
cis-1,2-Dichloroethene	ND	ug/kg	1.0				
Dibromomethane	ND	ug/kg	10.				
1,4-Dichlorobutane	ND	ug/kg	10.				
Iodomethane	ND	ug/kg	10.				
1,2,3-Trichloropropane	ND	ug/kg	10.				
Styrene	ND	ug/kg	1.0				
Dichlorodifluoromethane	ND	ug/kg	10.				
Acetone	ND	ug/kg	10.				
Carbon disulfide	ND	ug/kg	10.				
2-Butanone	ND	ug/kg	10.				
Vinyl acetate	ND	ug/kg	10.				
4-Methyl-2-pentanone	ND	ug/kg	10.				
2-Hexanone	ND	ug/kg	10.				
Ethyl methacrylate	ND	ug/kg	10.				
Acrolein	ND	ug/kg	25.				
Acrylonitrile	ND	ug/kg	10.				
Bromochloromethane	ND	ug/kg	5.0				
Tetrahydrofuran	ND	ug/kg	20.				
2,2-Dichloropropane	ND	ug/kg	5.0				
1,2-Dibromoethane	ND	ug/kg	5.0				
1,3-Dichloropropane	ND	ug/kg	5.0				
1,1,1,2-Tetrachloroethane	ND	ug/kg	1.0				
Bromobenzene	ND	ug/kg	5.0				
n-Butylbenzene	ND	ug/kg	1.0				
sec-Butylbenzene	ND	ug/kg	1.0				
tert-Butylbenzene	ND	ug/kg	5.0				
o-Chlorotoluene	ND	ug/kg	5.0				
p-Chlorotoluene	ND	ug/kg	5.0				
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0				
Hexachlorobutadiene	ND	ug/kg	5.0				
Isopropylbenzene	ND	ug/kg	1.0				
p-Isopropyltoluene	ND	ug/kg	1.0				
Naphthalene	ND	ug/kg	5.0				
n-Propylbenzene	ND	ug/kg	1.0				
1,2,3-Trichlorobenzene	ND	ug/kg	5.0				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0211671

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 07-08,11 (WG127649-9)							
Volatile Organics 8260 via Low 5035 continued				1 8260B		1119 15:12	BT
1,2,4-Trichlorobenzene	ND	ug/kg	5.0				
1,3,5-Trimethylbenzene	ND	ug/kg	5.0				
1,2,4-Trimethylbenzene	ND	ug/kg	5.0				
trans-1,4-Dichloro-2-butene	ND	ug/kg	5.0				
Ethyl ether	ND	ug/kg	5.0				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	114.	%					
Toluene-d8	107.	%					
4-Bromofluorobenzene	100.	%					
Dibromofluoromethane	100.	%					
Blank Analysis for sample(s) 06,09-10 (WG128116-4)							
Volatile Organics 8260 via High 5035				1 8260B		1120 17:33	BT
Methylene chloride	ND	ug/kg	500				
1,1-Dichloroethane	ND	ug/kg	75.				
Chloroform	ND	ug/kg	75.				
Carbon tetrachloride	ND	ug/kg	50.				
1,2-Dichloropropane	ND	ug/kg	180				
Dibromochloromethane	ND	ug/kg	50.				
1,1,2-Trichloroethane	ND	ug/kg	75.				
Tetrachloroethene	ND	ug/kg	50.				
Chlorobenzene	ND	ug/kg	50.				
Trichlorofluoromethane	ND	ug/kg	250				
1,2-Dichloroethane	ND	ug/kg	50.				
1,1,1-Trichloroethane	ND	ug/kg	50.				
Bromodichloromethane	ND	ug/kg	50.				
trans-1,3-Dichloropropene	ND	ug/kg	50.				
cis-1,3-Dichloropropene	ND	ug/kg	50.				
1,1-Dichloropropene	ND	ug/kg	250				
Bromoform	ND	ug/kg	200				
1,1,2,2-Tetrachloroethane	ND	ug/kg	50.				
Benzene	ND	ug/kg	50.				
Toluene	ND	ug/kg	75.				
Ethylbenzene	ND	ug/kg	50.				
Chloromethane	ND	ug/kg	250				
Bromomethane	ND	ug/kg	100				
Vinyl chloride	ND	ug/kg	100				
Chloroethane	ND	ug/kg	100				
1,1-Dichloroethene	ND	ug/kg	50.				
trans-1,2-Dichloroethene	ND	ug/kg	75.				
Trichloroethene	ND	ug/kg	50.				
1,2-Dichlorobenzene	ND	ug/kg	250				
1,3-Dichlorobenzene	ND	ug/kg	250				
1,4-Dichlorobenzene	ND	ug/kg	250				
Methyl tert butyl ether	ND	ug/kg	100				
p/m-Xylene	ND	ug/kg	50.				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0211671

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 06,09-10 (WG128116-4)							
Volatile Organics 8260 via High 5035 continued				1 8260B		1120 17:33	BT
o-Xylene	ND	ug/kg	50.				
cis-1,2-Dichloroethene	ND	ug/kg	50.				
Dibromomethane	ND	ug/kg	500				
1,4-Dichlorobutane	ND	ug/kg	500				
Iodomethane	ND	ug/kg	500				
1,2,3-Trichloropropane	ND	ug/kg	500				
Styrene	ND	ug/kg	50.				
Dichlorodifluoromethane	ND	ug/kg	500				
Acetone	ND	ug/kg	500				
Carbon disulfide	ND	ug/kg	500				
2-Butanone	ND	ug/kg	500				
Vinyl acetate	ND	ug/kg	500				
4-Methyl-2-pentanone	ND	ug/kg	500				
2-Hexanone	ND	ug/kg	500				
Ethyl methacrylate	ND	ug/kg	500				
Acrolein	ND	ug/kg	1200				
Acrylonitrile	ND	ug/kg	500				
Bromochloromethane	ND	ug/kg	250				
Tetrahydrofuran	ND	ug/kg	1000				
2,2-Dichloropropane	ND	ug/kg	250				
1,2-Dibromoethane	ND	ug/kg	250				
1,3-Dichloropropane	ND	ug/kg	250				
1,1,1,2-Tetrachloroethane	ND	ug/kg	50.				
Bromobenzene	ND	ug/kg	250				
n-Butylbenzene	ND	ug/kg	50.				
sec-Butylbenzene	ND	ug/kg	50.				
tert-Butylbenzene	ND	ug/kg	250				
o-Chlorotoluene	ND	ug/kg	250				
p-Chlorotoluene	ND	ug/kg	250				
1,2-Dibromo-3-chloropropane	ND	ug/kg	250				
Hexachlorobutadiene	ND	ug/kg	250				
Isopropylbenzene	ND	ug/kg	50.				
p-Isopropyltoluene	ND	ug/kg	50.				
Naphthalene	ND	ug/kg	250				
n-Propylbenzene	ND	ug/kg	50.				
1,2,3-Trichlorobenzene	ND	ug/kg	250				
1,2,4-Trichlorobenzene	ND	ug/kg	250				
1,3,5-Trimethylbenzene	ND	ug/kg	250				
1,2,4-Trimethylbenzene	ND	ug/kg	250				
trans-1,4-Dichloro-2-butene	ND	ug/kg	250				
Ethyl ether	ND	ug/kg	250				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	117.	%					
Toluene-d8	104.	%					
4-Bromofluorobenzene	102.	%					
Dibromofluoromethane	96.0	%					

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0211671

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-02,04-05 (WG127660-1)							
Extractable Petroleum Hydrocarbons				46 98-1	1115 10:00	1118 18:08	PD
C9-C18 Aliphatics	ND	ug/l	100.				
C19-C36 Aliphatics	ND	ug/l	100.				
C11-C22 Aromatics, Unadjusted	ND	ug/l	100.				
C11-C22 Aromatics, Adjusted	ND	ug/l	100.				
Naphthalene	ND	ug/l	20.0				
2-Methylnaphthalene	ND	ug/l	20.0				
Acenaphthylene	ND	ug/l	20.0				
Acenaphthene	ND	ug/l	20.0				
Fluorene	ND	ug/l	20.0				
Phenanthrene	ND	ug/l	20.0				
Anthracene	ND	ug/l	20.0				
Fluoranthene	ND	ug/l	20.0				
Pyrene	ND	ug/l	20.0				
Benzo(a)anthracene	ND	ug/l	20.0				
Chrysene	ND	ug/l	20.0				
Benzo(b)fluoranthene	ND	ug/l	20.0				
Benzo(k)fluoranthene	ND	ug/l	20.0				
Benzo(a)pyrene	ND	ug/l	20.0				
Indeno(1,2,3-cd)Pyrene	ND	ug/l	20.0				
Dibenzo(a,h)anthracene	ND	ug/l	20.0				
Benzo(g,h,i)perylene	ND	ug/l	20.0				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	65.0	%	40-140				
o-Terphenyl	78.0	%	40-140				
2-Fluorobiphenyl	77.0	%	40-140				
2-Bromonaphthalene	70.0	%	40-140				
Blank Analysis for sample(s) 06-10 (WG127534-6)							
Volatile Petroleum Hydrocarbons				47 98-1		1115 09:07	MM
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	89.0	%	70-130				
2,5-Dibromotoluene-FID	92.0	%	70-130				
Blank Analysis for sample(s) 03-04,12 (WG127648-4)							
Volatile Petroleum Hydrocarbons				47 98-1		1115 09:07	MM
C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0				
C9-C12 Aliphatics, Unadjusted	ND	ug/l	40.0				
C9-C10 Aromatics	ND	ug/l	40.0				
C5-C8 Aliphatics, Adjusted	ND	ug/l	40.0				
C9-C12 Aliphatics, Adjusted	ND	ug/l	40.0				
Benzene	ND	ug/l	2.00				
Toluene	ND	ug/l	2.00				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0211671

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 03-04,12 (WG127648-4)							
Volatile Petroleum Hydrocarbons continued				47 98-1		1115 09:07	MM
Ethylbenzene	ND	ug/l	2.00				
p/m-Xylene	ND	ug/l	2.00				
o-Xylene	ND	ug/l	2.00				
Methyl tert butyl ether	ND	ug/l	4.00				
Naphthalene	ND	ug/l	20.0				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	89.0	%	70-130				
2,5-Dibromotoluene-FID	92.0	%	70-130				
Blank Analysis for sample(s) 05 (WG127756-3)							
Volatile Petroleum Hydrocarbons				47 98-1		1115 09:07	MM
C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0				
C9-C12 Aliphatics, Unadjusted	ND	ug/l	40.0				
C9-C10 Aromatics	ND	ug/l	40.0				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	89.0	%	70-130				
2,5-Dibromotoluene-FID	92.0	%	70-130				
Blank Analysis for sample(s) 01-02 (WG127756-4)							
Volatile Petroleum Hydrocarbons				47 98-1		1118 10:10	MM
C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0				
C9-C12 Aliphatics, Unadjusted	ND	ug/l	40.0				
C9-C10 Aromatics	ND	ug/l	40.0				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	90.0	%	70-130				
2,5-Dibromotoluene-FID	93.0	%	70-130				
Blank Analysis for sample(s) 06-10 (WG127645-1)							
Extractable Petroleum Hydrocarbons				46 98-1	1115 09:45	1118 18:18	PD
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0 500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0211671

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 06-10 (WG127645-1)							
Extractable Petroleum Hydrocarbons continued				46 98-1	1115 09:45	1118 18:18	PD
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	66.0	%	40-140				
o-Terphenyl	75.0	%	40-140				
2-Fluorobiphenyl	79.0	%	40-140				
2-Bromonaphthalene	74.0	%	40-140				

ALPHA ANALYTICAL LABORATORIES
ADDENDUM I

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Update III, 1997.

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

GLOSSARY OF TERMS AND SYMBOLS

REF	Reference number in which test method may be found
METHOD	Method number by which analysis was performed.
ID	Initials of the analyst.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

LIMITATION OF LIABILITIES

Alpha Analytical, Inc. performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical, Inc., shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical, Inc. be held liable for any incidental consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical, Inc

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding times and splitting of samples in the field

CHAIN OF CUSTODY

PAGE 1 OF ____

ALPHA
Eight Walkup Drive Westborough, MA 01581
TEL: 508-898-9220 FAX: 508-898-9193

Date Rec'd in Lab: 11/14

ALPHA Job #: L021167-1

Client Information

Client: Rizzo Associates
Address: One Grant St
Framingham MA 01702
Phone: 508-903-2000
Fax: 508-903-2001
Email: jdeascentis@rizzo.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: YK Management
Project Location: Somerville MA
Project #: 2428-07
Project Manager: Janine Curtis
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due: 11/21 Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker: MCP
(Default based on Regulatory Criteria Indicated)
Other Formats:
☐ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #: 2428-07

Regulatory Requirements/Report Limits

State /Fed	Program	Criteria
MA	DEP	S-1
" "	" "	GW-2

Other Project Specific Requirements/Comments:

SAMPLE HANDLING
Filtration
☐ Done
☒ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VPH ~~delux~~ standard	EPH ~~standard~~ delux	8260 (VOCs)	8260/5035 (lo)	8260/5035 (hi)	Total Solids	Sample Specific Comments
1621 1	GP-1-GW	11/14/02	12:40	GW	JLD	2	2	2	—	—		
2	GP-2-GW	↓	13:15	↓	↓	↓	↓	↓	—	—		
3	GP-3-GW	↓	12:00	↓	↓	↓	↓	↓	—	—		
4	GP-4-GW	↓	13:40	↓	↓	↓	↓	↓	—	—		
5	GP-5-GW	↓	14:30	↓	↓	↓	↓	↓	—	—		
6	GP-1-4-8'	11/13/02	9:30	Soil	JLD	2	2	-	2	1	1	
7	GP-2-8-12'	↓	11:30	↓	↓		1	-	2	1	1	
8	GP-3-4-8'	↓	12:55	↓	↓		1	-	2	1	1	
9	GP-4-8-12'	↓	14:00	↓	↓		1	-	2	1	1	
10	GP-5-4-8'	↓	14:50	↓	↓		1	-	2	1	1	

Shaded Gray Areas For Lab Use Only

Container Type	V	A	A	V	V	P
Preservative	A	B	B	G	F	A

Relinquished By	Date/Time	Received By	Date/Time
	11/14/02		11/14/02 1620
	11/14/02 1700		11/14 1700

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

CHAIN OF CUSTODY

PAGE 2 OF ____

ALPHA
Eight Walkup Drive Westborough, MA 01581
TEL: 508-898-9220 FAX: 508-898-9193

Date Rec'd in Lab: 11/14

ALPHA Job #: L021167-1

Client Information

Client: Rizzo Associates
Address: One Grant St
Framingham, MA 01701
Phone: 508-903-2000
Fax: 508-903-2001
Email: jdeascentis@rizzo.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: YK Management
Project Location: Somerville MA
Project #: 2428-07
Project Manager: Janine Curtis
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due: 11/21 Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker: MCP
(Default based on Regulatory Criteria Indicated)
Other Formats:
☐ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #: 2428-07

Regulatory Requirements/Report Limits

State /Fed	Program	Criteria
MA	DEP	S-1
" "	" "	GW-2

Other Project Specific Requirements/Comments:

SAMPLE HANDLING
Filtration
☐ Done
☒ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VPH standard	EPH delux	8260 (VOCs)	8260/5035 (low)	8260/5035 (high)	Sample Specific Comments
1621.11	Tripblank	11/11/02	18:00	Soil	RJK				1		
12	Tripblank	11/11/02	13:10	GW	JHT	1		1			
13	Tripblank	11/14/02	15:00	GW	JLD			1			

Shaded Gray Areas For Lab Use Only

Container Type			✓	✓
Preservative	B		B	B

Relinquished By:	Date/Time	Received By:	Date/Time
	11/14/02		11/13/02 1600
	11/14/02 1700		11/14

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: Sanborn, Head & Associates, Inc.
Laboratory Job Number: L0309656

Address: 239 Littleton Road
Suite 1C
Westford, MA 01886

Date Received: 25-SEP-2003

Attn: Mr. Duncan Wood

Date Reported: 03-OCT-2003

Project Number: 2315.00

Delivery Method: Alpha

Site: 515 SOMERVILLE AVE

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0309656-01	SH-1, 3-4'	SOMERVILLE, MA
L0309656-02	SH-2, 3-4'	SOMERVILLE, MA
L0309656-03	SH-2, 7-8'	SOMERVILLE, MA
L0309656-04	SH-3, 3-4'	SOMERVILLE, MA
L0309656-05	SH-3, 8-9'	SOMERVILLE, MA
L0309656-06	SH-4, 3-4'	SOMERVILLE, MA
L0309656-07	SH-4, 9-10'	SOMERVILLE, MA
L0309656-08	SH-5, 3-4'	SOMERVILLE, MA
L0309656-09	SH-6, 3-4'	SOMERVILLE, MA
L0309656-10	SH-7, 3-4'	SOMERVILLE, MA
L0309656-11	TRIP BLANK-VPH DELUX	SOMERVILLE, MA
L0309656-12	TRIP BLANK-CVOC LOW LEVEL	SOMERVILLE, MA
L0309656-13	SH-1	SOMERVILLE, MA
L0309656-14	SH-2	SOMERVILLE, MA
L0309656-15	SH-3	SOMERVILLE, MA
L0309656-16	SH-4	SOMERVILLE, MA
L0309656-17	SH-5	SOMERVILLE, MA
L0309656-18	SH-6	SOMERVILLE, MA
L0309656-19	SH-7	SOMERVILLE, MA
L0309656-20	GP-1	SOMERVILLE, MA
L0309656-21	GP-4	SOMERVILLE, MA
L0309656-22	ET-1	SOMERVILLE, MA
L0309656-23	ET-2	SOMERVILLE, MA
L0309656-24	TRIP BLANK-VPH DELUX	SOMERVILLE, MA

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean
This document electronically signed

ALPHA ANALYTICAL LABORATORIES

Laboratory Job Number: L0309656
Date Reported: 03-OCT-2003

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0309656-25	TRIP BLANK-CVOC 8021	SOMERVILLE, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0309656

Volatile Organics

The analysis of Volatile Organics by EPA Method 8260B/5035 Low Level could not be performed on L0309656-03, -07 and -09 due to the high concentrations of target and non-target compounds present in the samples.

L0309656-03, -07 and -14 through -17 have elevated limits of detection due to the dilutions required by the elevated concentrations of non-target compounds in the samples.

VPH

L0309656-14 through -16 have elevated limits of detection due to the dilutions required by the elevated concentrations of target compounds in the samples.

EPH

L0309656-09 has elevated limits of detection due to the 5x dilution required by the elevated concentrations of target compounds in the sample.

One of the LCS % recoveries for Nonane associated with L0309656-13, -14, -16 and -20 through -23 is 39%.

L0308656-17, -18, -19 were re-extracted within the method required holding time and re-analyzed due to quality control failure of the original batch. The surrogate % recovery for Chloro-Octadecane on each sample is below the acceptance criteria for the method. The original analysis of the samples confirms the low surrogate. The results of the re-analysis are reported, along with the acceptable quality control.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number:	L0309656-01 SH-1, 3-4'	Date Collected:	24-SEP-2003 12:45
		Date Received :	25-SEP-2003
Sample Matrix:	SOIL	Date Reported :	03-OCT-2003
Condition of Sample:	Satisfactory	Field Prep:	None

Number & Type of Containers: 1-Amber,1-Plastic,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	90.	%	0.10	30 2540G		0926 13:51	ST
Volatile Organics 8260 via Low 5035				1 8260B		0930 00:11	ST
Methylene chloride	ND	ug/kg	9.7				
1,1-Dichloroethane	ND	ug/kg	1.5				
Chloroform	ND	ug/kg	1.5				
Carbon tetrachloride	ND	ug/kg	0.97				
1,2-Dichloropropane	ND	ug/kg	3.4				
Dibromochloromethane	ND	ug/kg	0.97				
1,1,2-Trichloroethane	ND	ug/kg	1.5				
Tetrachloroethene	ND	ug/kg	0.97				
Chlorobenzene	ND	ug/kg	0.97				
Trichlorofluoromethane	ND	ug/kg	4.9				
1,2-Dichloroethane	ND	ug/kg	0.97				
1,1,1-Trichloroethane	ND	ug/kg	0.97				
Bromodichloromethane	ND	ug/kg	0.97				
trans-1,3-Dichloropropene	ND	ug/kg	0.97				
cis-1,3-Dichloropropene	ND	ug/kg	0.97				
Bromoform	ND	ug/kg	3.9				
1,1,2,2-Tetrachloroethane	ND	ug/kg	0.97				
Chloromethane	ND	ug/kg	4.9				
Bromomethane	ND	ug/kg	1.9				
Vinyl chloride	ND	ug/kg	1.9				
Chloroethane	ND	ug/kg	1.9				
1,1-Dichloroethene	ND	ug/kg	0.97				
trans-1,2-Dichloroethene	ND	ug/kg	1.5				
Trichloroethene	ND	ug/kg	0.97				
1,2-Dichlorobenzene	ND	ug/kg	4.9				
1,3-Dichlorobenzene	ND	ug/kg	4.9				
1,4-Dichlorobenzene	ND	ug/kg	4.9				
cis-1,2-Dichloroethene	ND	ug/kg	0.97				
Dichlorodifluoromethane	ND	ug/kg	9.7				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	112.	%	
Toluene-d8	117.	%	
4-Bromofluorobenzene	114.	%	
Dibromofluoromethane	110.	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-01
SH-1, 3-4'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		1001 15:33	MM

Quality Control Information

Condition of sample received:	Satisfactory	
Sample temperature upon receipt:	Received on Ice	
Were samples received in methanol?	Covering the Soil	
Methanol ratio:	1:1 +/- 25%	
Were all QA/QC procedures REQUIRED by the method followed?		YES
Were all performance/acceptance standards for the required procedures achieved?		YES
Were significant modifications made to the method as specified in Sect 11.3?		NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.73
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.73
C9-C10 Aromatics	ND	mg/kg	2.73
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.73
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.73
Benzene	ND	mg/kg	0.137
Toluene	ND	mg/kg	0.137
Ethylbenzene	ND	mg/kg	0.137
p/m-Xylene	ND	mg/kg	0.137
o-Xylene	ND	mg/kg	0.137
Methyl tert butyl ether	ND	mg/kg	0 273
Naphthalene	ND	mg/kg	1.37

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	123	%	70-130
2,5-Dibromotoluene-FID	120.	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-01
SH-1, 3-4'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				44 98-1	0924 10:45	0930 09:13	MW

Quality Control Information

Condition of sample received:	Satisfactory	
Sample temperature upon receipt:	Received on Ice	
Sample extraction method:	Extracted Per the Method	
Were all QA/QC procedures REQUIRED by the method followed?		YES
Were all performance/acceptance standards for the required procedures achieved?		YES
Were significant modifications made to the method as specified in Sect 11.3?		NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%

C9-C18 Aliphatics	ND	mg/kg	11.1
C19-C36 Aliphatics	ND	mg/kg	11.1
C11-C22 Aromatics, Unadjusted	ND	mg/kg	11.1
C11-C22 Aromatics, Adjusted	ND	mg/kg	11.1
Naphthalene	ND	mg/kg	0.556
2-Methylnaphthalene	ND	mg/kg	0.556
Acenaphthylene	ND	mg/kg	0.556
Acenaphthene	ND	mg/kg	0.556
Fluorene	ND	mg/kg	0.556
Phenanthrene	ND	mg/kg	0.556
Anthracene	ND	mg/kg	0.556
Fluoranthene	ND	mg/kg	0.556
Pyrene	ND	mg/kg	0.556
Benzo(a)anthracene	ND	mg/kg	0.556
Chrysene	ND	mg/kg	0.556
Benzo(b)fluoranthene	ND	mg/kg	0.556
Benzo(k)fluoranthene	ND	mg/kg	0.556
Benzo(a)pyrene	ND	mg/kg	0.556
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.556
Dibenzo(a,h)anthracene	ND	mg/kg	0.556
Benzo(g,h,i)perylene	ND	mg/kg	0.556

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	60.0	%	40-140
o-Terphenyl	64.0	%	40-140
2-Fluorobiphenyl	67.0	%	40-140
2-Bromonaphthalene	69.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0309656-02
SH-2, 3-4'
Sample Matrix: SOIL
Date Collected: 24-SEP-2003 09:50
Date Received : 25-SEP-2003
Date Reported : 03-OCT-2003
Condition of Sample: Satisfactory
Field Prep: None
Number & Type of Containers: 1-Amber,1-Plastic,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	

******* THIS SAMPLE IS ON HOLD *******

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0309656-03
SH-2, 7-8'
Sample Matrix: SOIL
Date Collected: 24-SEP-2003 10:15
Date Received : 25-SEP-2003
Date Reported : 03-OCT-2003
Condition of Sample: Satisfactory
Field Prep: None
Number & Type of Containers: 1-Amber,1-Plastic,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	96.	%	0.10	30 2540G		0924 12:51	ST
Volatile Organics 8260 via High 5035				1 8260B		0930 20:41	BT
Methylene chloride	ND	ug/kg	5400				
1,1-Dichloroethane	ND	ug/kg	810				
Chloroform	ND	ug/kg	810				
Carbon tetrachloride	ND	ug/kg	540				
1,2-Dichloropropane	ND	ug/kg	1900				
Dibromochloromethane	ND	ug/kg	540				
1,1,2-Trichloroethane	ND	ug/kg	810				
Tetrachloroethene	ND	ug/kg	540				
Chlorobenzene	ND	ug/kg	540				
Trichlorofluoromethane	ND	ug/kg	2700				
1,2-Dichloroethane	ND	ug/kg	540				
1,1,1-Trichloroethane	ND	ug/kg	540				
Bromodichloromethane	ND	ug/kg	540				
trans-1,3-Dichloropropene	ND	ug/kg	540				
cis-1,3-Dichloropropene	ND	ug/kg	540				
Bromoform	ND	ug/kg	2200				
1,1,2,2-Tetrachloroethane	ND	ug/kg	540				
Chloromethane	ND	ug/kg	2700				
Bromomethane	ND	ug/kg	1100				
Vinyl chloride	ND	ug/kg	1100				
Chloroethane	ND	ug/kg	1100				
1,1-Dichloroethene	ND	ug/kg	540				
trans-1,2-Dichloroethene	ND	ug/kg	810				
Trichloroethene	ND	ug/kg	540				
1,2-Dichlorobenzene	ND	ug/kg	2700				
1,3-Dichlorobenzene	ND	ug/kg	2700				
1,4-Dichlorobenzene	ND	ug/kg	2700				
cis-1,2-Dichloroethene	ND	ug/kg	540				
Dichlorodifluoromethane	ND	ug/kg	5400				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	98.0	%					
Toluene-d8	109.	%					
4-Bromofluorobenzene	117.	%					
Dibromofluoromethane	94.0	%					

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-03
SH-2, 7-8'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Petroleum Hydrocarbons				47 98-1		1002 16:24	MM

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Covering the Soil
Methanol ratio: 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	9.49	mg/kg	2.42
C9-C12 Aliphatics, Unadjusted	435.	mg/kg	2.42
C9-C10 Aromatics	214.	mg/kg	2.42
C5-C8 Aliphatics, Adjusted	9.49	mg/kg	2.42
C9-C12 Aliphatics, Adjusted	219.	mg/kg	2.42
Benzene	ND	mg/kg	0.121
Toluene	ND	mg/kg	0.121
Ethylbenzene	0.644	mg/kg	0.121
p/m-Xylene	ND	mg/kg	0.121
o-Xylene	1.14	mg/kg	0.121
Methyl tert butyl ether	ND	mg/kg	0.242
Naphthalene	ND	mg/kg	1.21
Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	98.0	%	70-130
2,5-Dibromotoluene-FID	94.0	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-03
SH-2, 7-8'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Extractable Petroleum Hydrocarbons				46 98-1	0926 10:45	0930 10:02	BM

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	543.	mg/kg	10.4
C19-C36 Aliphatics	153.	mg/kg	10.4
C11-C22 Aromatics, Unadjusted	59.6	mg/kg	10.4
C11-C22 Aromatics, Adjusted	59.6	mg/kg	10.4
Naphthalene	ND	mg/kg	0.521
2-Methylnaphthalene	ND	mg/kg	0.521
Acenaphthylene	ND	mg/kg	0.521
Acenaphthene	ND	mg/kg	0.521
Fluorene	ND	mg/kg	0.521
Phenanthrene	ND	mg/kg	0.521
Anthracene	ND	mg/kg	0.521
Fluoranthene	ND	mg/kg	0.521
Pyrene	ND	mg/kg	0.521
Benzo(a)anthracene	ND	mg/kg	0.521
Chrysene	ND	mg/kg	0.521
Benzo(b)fluoranthene	ND	mg/kg	0.521
Benzo(k)fluoranthene	ND	mg/kg	0.521
Benzo(a)pyrene	ND	mg/kg	0.521
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.521
Dibenzo(a,h)anthracene	ND	mg/kg	0.521
Benzo(g,h,i)perylene	ND	mg/kg	0.521
Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	55.0	%	40-140
o-Terphenyl	75.0	%	40-140
2-Fluorobiphenyl	66.0	%	40-140
2-Bromonaphthalene	69.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0309656-04
SH-3, 3-4'
Sample Matrix: SOIL
Date Collected: 24-SEP-2003 11:15
Date Received : 25-SEP-2003
Date Reported : 03-OCT-2003
Condition of Sample: Satisfactory
Field Prep: None
Number & Type of Containers: 1-Amber,1-Plastic,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID

******* THIS SAMPLE IS ON HOLD *******

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0309656-05
SH-3, 8-9'
Sample Matrix: SOIL
Date Collected: 24-SEP-2003 11:50
Date Received : 25-SEP-2003
Date Reported : 03-OCT-2003
Condition of Sample: Satisfactory
Field Prep: None
Number & Type of Containers: 1-Amber,1-Plastic,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	86.	%	0.10	30 2540G		[illegible]	
Volatile Organics 8260 via Low 5035				1 8260B		[illegible]	
Methylene chloride	ND	ug/kg	9.1				
1,1-Dichloroethane	ND	ug/kg	1.4				
Chloroform	ND	ug/kg	1.4				
Carbon tetrachloride	ND	ug/kg	0.91				
1,2-Dichloropropane	ND	ug/kg	3.2				
Dibromochloromethane	ND	ug/kg	0.91				
1,1,2-Trichloroethane	ND	ug/kg	1.4				
Tetrachloroethene	ND	ug/kg	0.91				
Chlorobenzene	ND	ug/kg	0.91				
Trichlorofluoromethane	ND	ug/kg	4.5				
1,2-Dichloroethane	ND	ug/kg	0.91				
1,1,1-Trichloroethane	ND	ug/kg	0.91				
Bromodichloromethane	ND	ug/kg	0.91				
trans-1,3-Dichloropropene	ND	ug/kg	0.91				
cis-1,3-Dichloropropene	ND	ug/kg	0.91				
Bromoform	ND	ug/kg	3.6				
1,1,2,2-Tetrachloroethane	ND	ug/kg	0.91				
Chloromethane	ND	ug/kg	4.5				
Bromomethane	ND	ug/kg	1.8				
Vinyl chloride	ND	ug/kg	1.8				
Chloroethane	ND	ug/kg	1.8				
1,1-Dichloroethene	ND	ug/kg	0.91				
trans-1,2-Dichloroethene	ND	ug/kg	1.4				
Trichloroethene	ND	ug/kg	0.91				
1,2-Dichlorobenzene	ND	ug/kg	4.5				
1,3-Dichlorobenzene	ND	ug/kg	4.5				
1,4-Dichlorobenzene	ND	ug/kg	4.5				
cis-1,2-Dichloroethene	ND	ug/kg	0.91				
Dichlorodifluoromethane	ND	ug/kg	9.1				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	112.	%	
Toluene-d8	114.	%	
4-Bromofluorobenzene	114.	%	
Dibromofluoromethane	110.	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-05
SH-3, 8-9'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		[illegible]	

Quality Control Information

Condition of sample received:	Satisfactory	
Sample temperature upon receipt:	Received on Ice	
Were samples received in methanol?	Covering the Soil	
Methanol ratio:	Below 1:1 +/- 25%	
Were all QA/QC procedures REQUIRED by the method followed?		YES
Were all performance/acceptance standards for the required procedures achieved?		YES
Were significant modifications made to the method as specified in Sect 11.3?		NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	3.32
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	3.32
C9-C10 Aromatics	ND	mg/kg	3.32
C5-C8 Aliphatics, Adjusted	ND	mg/kg	3.32
C9-C12 Aliphatics, Adjusted	ND	mg/kg	3.32
Benzene	ND	mg/kg	0.166
Toluene	ND	mg/kg	0.166
Ethylbenzene	ND	mg/kg	0.166
p/m-Xylene	ND	mg/kg	0.166
o-Xylene	ND	mg/kg	0.166
Methyl tert butyl ether	ND	mg/kg	0.332
Naphthalene	ND	mg/kg	1.66

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	106.	%	70-130
2,5-Dibromotoluene-FID	105.	%	70-130

Comments Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-05
SH-3, 8-9'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				45 98-1	[illegible]	[illegible]	

Quality Control Information

Condition of sample received:	Satisfactory	
Sample temperature upon receipt:	Received on Ice	
Sample extraction method:	Extracted Per the Method	
Were all QA/QC procedures REQUIRED by the method followed?		YES
Were all performance/acceptance standards for the required procedures achieved?		YES
Were significant modifications made to the method as specified in Sect 11.3?		NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	11.6
C19-C36 Aliphatics	ND	mg/kg	11.6
C11-C22 Aromatics, Unadjusted	ND	mg/kg	11.6
C11-C22 Aromatics, Adjusted	ND	mg/kg	11.6
Naphthalene	ND	mg/kg	0.581
2-Methylnaphthalene	ND	mg/kg	0.581
Acenaphthylene	ND	mg/kg	0.581
Acenaphthene	ND	mg/kg	0.581
Fluorene	ND	mg/kg	0.581
Phenanthrene	ND	mg/kg	0.581
Anthracene	ND	mg/kg	0.581
Fluoranthene	ND	mg/kg	0.581
Pyrene	ND	mg/kg	0.581
Benzo(a)anthracene	ND	mg/kg	0.581
Chrysene	ND	mg/kg	0.581
Benzo(b)fluoranthene	ND	mg/kg	0.581
Benzo(k)fluoranthene	ND	mg/kg	0.581
Benzo(a)pyrene	ND	mg/kg	0.581
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.581
Dibenzo(a,h)anthracene	ND	mg/kg	0.581
Benzo(g,h,i)perylene	ND	mg/kg	0.581

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	73.0	%	40-140
o Terphenyl	78.0	%	40-140
2-Fluorobiphenyl	71.0	%	40-140
2-Bromonaphthalene	73.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0309656-06
SH-4, 3-4'
Sample Matrix: SOIL
Condition of Sample: Satisfactory
Number & Type of Containers: 1-Amber,1-Plastic,4-Vial

Date Collected: 24-SEP-2003 17:00
Date Received : 25-SEP-2003
Date Reported : 03-OCT-2003
Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID

******* THIS SAMPLE IS ON HOLD *******

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0309656-07
SH-4, 9-10'
Sample Matrix: SOIL
Condition of Sample: Satisfactory
Number & Type of Containers: 1-Amber,1-Plastic,4-Vial

Date Collected: 24-SEP-2003 17:45
Date Received : 25-SEP-2003
Date Reported : 03-OCT-2003
Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	96.	%	0.10	30 2540G		0926 12:51	ST
Volatile Organics 8260 via High 5035				1 8260B		0930 21:28	BT
Methylene chloride	ND	ug/kg	1900				
1,1-Dichloroethane	ND	ug/kg	290				
Chloroform	ND	ug/kg	290				
Carbon tetrachloride	ND	ug/kg	190				
1,2-Dichloropropane	ND	ug/kg	680				
Dibromochloromethane	ND	ug/kg	190				
1,1,2-Trichloroethane	ND	ug/kg	290				
Tetrachloroethene	ND	ug/kg	190				
Chlorobenzene	ND	ug/kg	190				
Trichlorofluoromethane	ND	ug/kg	960				
1,2-Dichloroethane	ND	ug/kg	190				
1,1,1-Trichloroethane	ND	ug/kg	190				
Bromodichloromethane	ND	ug/kg	190				
trans-1,3-Dichloropropene	ND	ug/kg	190				
cis-1,3-Dichloropropene	ND	ug/kg	190				
Bromoform	ND	ug/kg	770				
1,1,2,2-Tetrachloroethane	ND	ug/kg	190				
Chloromethane	ND	ug/kg	960				
Bromomethane	ND	ug/kg	380				
Vinyl chloride	ND	ug/kg	380				
Chloroethane	ND	ug/kg	380				
1,1-Dichloroethene	ND	ug/kg	190				
trans-1,2-Dichloroethene	ND	ug/kg	290				
Trichloroethene	ND	ug/kg	190				
1,2-Dichlorobenzene	ND	ug/kg	960				
1,3-Dichlorobenzene	ND	ug/kg	960				
1,4-Dichlorobenzene	ND	ug/kg	960				
cis-1,2-Dichloroethene	ND	ug/kg	190				
Dichlorodifluoromethane	ND	ug/kg	1900				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	95.0	%	
Toluene-d8	110.	%	
4-Bromofluorobenzene	105.	%	
Dibromofluoromethane	90.0	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-07
SH-4, 9-10'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		1001 18:06	MM

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Covering the Soil
Methanol ratio: 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	1.99
C9-C12 Aliphatics, Unadjusted	120.	mg/kg	1.99
C9-C10 Aromatics	62.6	mg/kg	1.99
C5-C8 Aliphatics, Adjusted	ND	mg/kg	1.99
C9-C12 Aliphatics, Adjusted	57.4	mg/kg	1.99
Benzene	ND	mg/kg	0.100
Toluene	ND	mg/kg	0.100
Ethylbenzene	ND	mg/kg	0.100
p/m-Xylene	ND	mg/kg	0.100
o-Xylene	ND	mg/kg	0.100
Methyl tert butyl ether	ND	mg/kg	0.199
Naphthalene	ND	mg/kg	0.995

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	112.	%	70-130
2,5-Dibromotoluene-FID	102.	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-07
SH-4, 9-10'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0926 10:45	0930 11:40	BM

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	51.9	mg/kg	10.4
C19-C36 Aliphatics	38.7	mg/kg	10.4
C11-C22 Aromatics, Unadjusted	27.9	mg/kg	10.4
C11-C22 Aromatics, Adjusted	27.9	mg/kg	10.4
Naphthalene	ND	mg/kg	0.521
2-Methylnaphthalene	ND	mg/kg	0.521
Acenaphthylene	ND	mg/kg	0.521
Acenaphthene	ND	mg/kg	0.521
Fluorene	ND	mg/kg	0.521
Phenanthrene	ND	mg/kg	0.521
Anthracene	ND	mg/kg	0.521
Fluoranthene	ND	mg/kg	0.521
Pyrene	ND	mg/kg	0.521
Benzo(a)anthracene	ND	mg/kg	0.521
Chrysene	ND	mg/kg	0.521
Benzo(b)fluoranthene	ND	mg/kg	0.521
Benzo(k)fluoranthene	ND	mg/kg	0.521
Benzo(a)pyrene	ND	mg/kg	0.521
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.521
Dibenzo(a,h)anthracene	ND	mg/kg	0.521
Benzo(g,h,i)perylene	ND	mg/kg	0.521

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	48.0	%	40-140
o-Terphenyl	69.0	%	40-140
2-Fluorobiphenyl	62.0	%	40-140
2-Bromonaphthalene	66.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number:	L0309656-08 SH-5, 3-4'	**Date Collected:**	24-SEP-2003 16:20
		Date Received :	25-SEP-2003
Sample Matrix:	SOIL	**Date Reported :**	03-OCT-2003
Condition of Sample:	Satisfactory	**Field Prep:**	None

Number & Type of Containers: 1-Amber,1-Plastic,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	93.	%	0.10	30 2540G		0926 12:51	ST
Volatile Organics 8260 via Low 5035				1 8260B		0930 09:22	BT
Methylene chloride	ND	ug/kg	8.3				
1,1-Dichloroethane	ND	ug/kg	1.2				
Chloroform	ND	ug/kg	1.2				
Carbon tetrachloride	ND	ug/kg	0.83				
1,2-Dichloropropane	ND	ug/kg	2.9				
Dibromochloromethane	ND	ug/kg	0.83				
1,1,2-Trichloroethane	ND	ug/kg	1.2				
Tetrachloroethene	ND	ug/kg	0.83				
Chlorobenzene	ND	ug/kg	0.83				
Trichlorofluoromethane	ND	ug/kg	4.1				
1,2-Dichloroethane	ND	ug/kg	0.83				
1,1,1-Trichloroethane	ND	ug/kg	0.83				
Bromodichloromethane	ND	ug/kg	0.83				
trans-1,3-Dichloropropene	ND	ug/kg	0.83				
cis-1,3-Dichloropropene	ND	ug/kg	0.83				
Bromoform	ND	ug/kg	3.3				
1,1,2,2-Tetrachloroethane	ND	ug/kg	0.83				
Chloromethane	ND	ug/kg	4.1				
Bromomethane	ND	ug/kg	1.6				
Vinyl chloride	ND	ug/kg	1.6				
Chloroethane	ND	ug/kg	1.6				
1,1-Dichloroethene	ND	ug/kg	0.83				
trans-1,2-Dichloroethene	ND	ug/kg	1.2				
Trichloroethene	ND	ug/kg	0.83				
1,2-Dichlorobenzene	ND	ug/kg	4.1				
1,3-Dichlorobenzene	ND	ug/kg	4.1				
1,4-Dichlorobenzene	ND	ug/kg	4.1				
cis-1,2-Dichloroethene	ND	ug/kg	0.83				
Dichlorodifluoromethane	ND	ug/kg	8.3				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	113.	%	
Toluene-d8	121.	%	
4-Bromofluorobenzene	128	%	
Dibromofluoromethane	112.	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-08
SH-5, 3-4'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98 1		1001 10:07	MM

Quality Control Information

Condition of sample received:	Satisfactory	
Sample temperature upon receipt:	Received on Ice	
Were samples received in methanol?	Covering the Soil	
Methanol ratio:	Below 1:1 +/- 25%	
Were all QA/QC procedures REQUIRED by the method followed?		YES
Were all performance/acceptance standards for the required procedures achieved?		YES
Were significant modifications made to the method as specified in Sect 11.3?		NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	3.07
C9-C12 Aliphatics, Unadjusted	44.5	mg/kg	3.07
C9-C10 Aromatics	17.1	mg/kg	3.07
C5-C8 Aliphatics, Adjusted	ND	mg/kg	3.07
C9-C12 Aliphatics, Adjusted	27.4	mg/kg	3.07
Benzene	ND	mg/kg	0.154
Toluene	ND	mg/kg	0.154
Ethylbenzene	ND	mg/kg	0.154
p/m-Xylene	ND	mg/kg	0.154
o-Xylene	ND	mg/kg	0.154
Methyl tert butyl ether	ND	mg/kg	0.307
Naphthalene	ND	mg/kg	1.54

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	117.	%	70-130
2,5-Dibromotoluene-FID	114.	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-08
SH-5, 3-4'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98 1	0926 16:45	0930 12:29	MW

Quality Control Information

Condition of sample received:	Satisfactory	
Sample temperature upon receipt:	Received on Ice	
Sample extraction method:	Extracted Per the Method	
Were all QA/QC procedures REQUIRED by the method followed?		YES
Were all performance/acceptance standards for the required procedures achieved?		YES
Were significant modifications made to the method as specified in Sect 11.3?		NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%

C9-C18 Aliphatics	ND	mg/kg	10.8
C19-C36 Aliphatics	ND	mg/kg	10.8
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.8
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.8
Naphthalene	ND	mg/kg	0.538
2-Methylnaphthalene	ND	mg/kg	0.538
Acenaphthylene	ND	mg/kg	0.538
Acenaphthene	ND	mg/kg	0.538
Fluorene	ND	mg/kg	0.538
Phenanthrene	ND	mg/kg	0.538
Anthracene	ND	mg/kg	0.538
Fluoranthene	ND	mg/kg	0.538
Pyrene	ND	mg/kg	0.538
Benzo(a)anthracene	ND	mg/kg	0.538
Chrysene	ND	mg/kg	0.538
Benzo(b)fluoranthene	ND	mg/kg	0.538
Benzo(k)fluoranthene	ND	mg/kg	0.538
Benzo(a)pyrene	ND	mg/kg	0.538
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.538
Dibenzo(a,h)anthracene	ND	mg/kg	0.538
Benzo(g,h,i)perylene	ND	mg/kg	0.538

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	54.0	%	40-140
o Terphenyl	67.0	%	40-140
2-Fluorobiphenyl	65.0	%	40-140
2-Bromonaphthalene	68.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number:	L0309656-09 SH-6, 3-4'	**Date Collected:**	24-SEP-2003 15:15
		Date Received :	25-SEP-2003
Sample Matrix:	SOIL	**Date Reported :**	03-OCT-2003
Condition of Sample:	Satisfactory	**Field Prep:**	None

Number & Type of Containers: 1-Amber,1-Plastic,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	94.	%	0.10	30 2540G		0926 12:51	ST
Volatile Organics 8260 via High 5035				1 8260B		0930 22:09	BT
Methylene chloride	ND	ug/kg	650				
1,1-Dichloroethane	ND	ug/kg	98.				
Chloroform	ND	ug/kg	98.				
Carbon tetrachloride	ND	ug/kg	65.				
1,2-Dichloropropane	ND	ug/kg	230				
Dibromochloromethane	ND	ug/kg	65.				
1,1,2-Trichloroethane	ND	ug/kg	98.				
Tetrachloroethene	ND	ug/kg	65.				
Chlorobenzene	ND	ug/kg	65.				
Trichlorofluoromethane	ND	ug/kg	330				
1,2-Dichloroethane	ND	ug/kg	65.				
1,1,1-Trichloroethane	ND	ug/kg	65.				
Bromodichloromethane	ND	ug/kg	65.				
trans-1,3-Dichloropropene	ND	ug/kg	65.				
cis-1,3-Dichloropropene	ND	ug/kg	65.				
Bromoform	ND	ug/kg	260				
1,1,2,2-Tetrachloroethane	ND	ug/kg	65.				
Chloromethane	ND	ug/kg	330				
Bromomethane	ND	ug/kg	130				
Vinyl chloride	ND	ug/kg	130				
Chloroethane	ND	ug/kg	130				
1,1-Dichloroethene	ND	ug/kg	65.				
trans-1,2-Dichloroethene	ND	ug/kg	98				
Trichloroethene	ND	ug/kg	65				
1,2 Dichlorobenzene	ND	ug/kg	330				
1,3-Dichlorobenzene	ND	ug/kg	330				
1,4-Dichlorobenzene	ND	ug/kg	330				
cis-1,2-Dichloroethene	ND	ug/kg	65				
Dichlorodifluoromethane	ND	ug/kg	650				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	92 0	%	
Toluene-d8	113.	%	
4 Bromofluorobenzene	102	%	
Dibromofluoromethane	87 0	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-09
SH-6, 3-4'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		1001 11:08	MM

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Covering the Soil
Methanol ratio: Below 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

PARAMETER	RESULT	UNITS	RDL
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	3.19
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	3.19
C9-C10 Aromatics	ND	mg/kg	3.19
C5-C8 Aliphatics, Adjusted	ND	mg/kg	3.19
C9-C12 Aliphatics, Adjusted	ND	mg/kg	3.19
Benzene	ND	mg/kg	0.160
Toluene	ND	mg/kg	0.160
Ethylbenzene	ND	mg/kg	0.160
p/m-Xylene	ND	mg/kg	0.160
o-Xylene	ND	mg/kg	0.160
Methyl tert butyl ether	ND	mg/kg	0.319
Naphthalene	ND	mg/kg	1.60

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	94.0	%	70-130
2,5-Dibromotoluene-FID	118.	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-09
SH-6, 3-4'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0926 10:48	1001 08:16	BW

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

PARAMETER	RESULT	UNITS	RDL
C9-C18 Aliphatics	ND	mg/kg	53.2
C19-C36 Aliphatics	74.5	mg/kg	53.2
C11-C22 Aromatics, Unadjusted	965.	mg/kg	53.2
C11-C22 Aromatics, Adjusted	523.	mg/kg	53.2
Naphthalene	ND	mg/kg	2.66
2-Methylnaphthalene	ND	mg/kg	2.66
Acenaphthylene	ND	mg/kg	2.66
Acenaphthene	7.19	mg/kg	2.66
Fluorene	9.54	mg/kg	2.66
Phenanthrene	102.	mg/kg	2.66
Anthracene	27.2	mg/kg	2.66
Fluoranthene	83.8	mg/kg	2.66
Pyrene	68.7	mg/kg	2.66
Benzo(a)anthracene	28.8	mg/kg	2.66
Chrysene	27.8	mg/kg	2.66
Benzo(b)fluoranthene	22.6	mg/kg	2.66
Benzo(k)fluoranthene	18.1	mg/kg	2.66
Benzo(a)pyrene	20.9	mg/kg	2.66
Indeno(1,2,3-cd)Pyrene	11.7	mg/kg	2.66
Dibenzo(a,h)anthracene	3.72	mg/kg	2.66
Benzo(g,h,i)perylene	9.66	mg/kg	2.66

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	59.0	%	40-140
o-Terphenyl	104.	%	40-140
2-Fluorobiphenyl	70.0	%	40-140
2-Bromonaphthalene	79.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0309656-10
SH-7, 3-4'
Sample Matrix: SOIL

Date Collected: 24-SEP-2003 14:00
Date Received : 25-SEP-2003
Date Reported : 03-OCT-2003

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Plastic,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	89.	%	0.10	30 2540G		0926 11:51	ST
Volatile Organics 8260 via Low 5035				1 8260B		1001 18:46	ST
Methylene chloride	ND	ug/kg	8.8				
1,1-Dichloroethane	ND	ug/kg	1.3				
Chloroform	ND	ug/kg	1.3				
Carbon tetrachloride	ND	ug/kg	0.88				
1,2-Dichloropropane	ND	ug/kg	3.1				
Dibromochloromethane	ND	ug/kg	0.88				
1,1,2-Trichloroethane	ND	ug/kg	1.3				
Tetrachloroethene	2.0	ug/kg	0.88				
Chlorobenzene	ND	ug/kg	0.88				
Trichlorofluoromethane	ND	ug/kg	4.4				
1,2-Dichloroethane	ND	ug/kg	0.88				
1,1,1-Trichloroethane	ND	ug/kg	0.88				
Bromodichloromethane	ND	ug/kg	0.88				
trans-1,3-Dichloropropene	ND	ug/kg	0.88				
cis-1,3-Dichloropropane	ND	ug/kg	0.88				
Bromoform	ND	ug/kg	3.5				
1,1,2,2-Tetrachloroethane	ND	ug/kg	0.88				
Chloromethane	ND	ug/kg	4.4				
Bromomethane	ND	ug/kg	1.8				
Vinyl chloride	ND	ug/kg	1.8				
Chloroethane	ND	ug/kg	1.8				
1,1-Dichloroethene	ND	ug/kg	0.88				
trans-1,2-Dichloroethene	ND	ug/kg	1.3				
Trichloroethene	ND	ug/kg	0.88				
1,2-Dichlorobenzene	ND	ug/kg	4.4				
1,3-Dichlorobenzene	ND	ug/kg	4.4				
1,4-Dichlorobenzene	ND	ug/kg	4.4				
cis-1,2-Dichloroethene	ND	ug/kg	0.88				
Dichlorodifluoromethane	ND	ug/kg	8.8				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	104.	%	
Toluene-d8	119	%	
4-Bromofluorobenzene	128.	%	
Dibromofluoromethane	105.	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-10
SH-7, 3-4'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		1001 23:38	MM

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Covering the Soil
Methanol ratio: Below 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

PARAMETER	RESULT	UNITS	RDL
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	3.37
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	3.37
C9-C10 Aromatics	ND	mg/kg	3.37
C5-C8 Aliphatics, Adjusted	ND	mg/kg	3.37
C9-C12 Aliphatics, Adjusted	ND	mg/kg	3.37
Benzene	ND	mg/kg	0.168
Toluene	ND	mg/kg	0.168
Ethylbenzene	ND	mg/kg	0.168
p/m-Xylene	ND	mg/kg	0.168
o-Xylene	ND	mg/kg	0.168
Methyl tert butyl ether	ND	mg/kg	0.337
Naphthalene	ND	mg/kg	1.68

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	117.	%	70-130
2,5-Dibromotoluene-FID	120.	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-10
SH-7, 1-4'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Extractable Petroleum Hydrocarbons				48 98-2	0924 10:45	0930 14 07	BW

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	11.2
C19-C36 Aliphatics	ND	mg/kg	11.2
C11-C22 Aromatics, Unadjusted	12.5	mg/kg	11 2
C11-C22 Aromatics, Adjusted	12.5	mg/kg	11.2
Naphthalene	ND	mg/kg	0.562
2-Methylnaphthalene	ND	mg/kg	0.562
Acenaphthylene	ND	mg/kg	0 562
Acenaphthene	ND	mg/kg	0.562
Fluorene	ND	mg/kg	0.562
Phenanthrene	ND	mg/kg	0.562
Anthracene	ND	mg/kg	0.562
Fluoranthene	ND	mg/kg	0.562
Pyrene	ND	mg/kg	0.562
Benzo(a)anthracene	ND	mg/kg	0.562
Chrysene	ND	mg/kg	0.562
Benzo(b)fluoranthene	ND	mg/kg	0.562
Benzo(k)fluoranthene	ND	mg/kg	0.562
Benzo(a)pyrene	ND	mg/kg	0.562
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.562
Dibenzo(a,h)anthracene	ND	mg/kg	0.562
Benzo(g,h,i)perylene	ND	mg/kg	0.562

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	61.0	%	40-140
o-Terphenyl	69.0	%	40-140
2-Fluorobiphenyl	58.0	%	40-140
2-Bromonaphthalene	62.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0309656-11
TRIP BLANK-VPH DELUX
Sample Matrix: SOIL
Date Collected: 22-JUL-2003 09:05
Date Received : 25-SEP-2003
Date Reported : 03-OCT-2003
Condition of Sample: Satisfactory
Field Prep: None
Number & Type of Containers: 1-Vial

Comments:
Results are reported on an 'AS RECEIVED' basis.

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Petroleum Hydrocarbons				47 98-1		1001 21:29	MM

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Covering the Soil
Methanol ratio: 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00
C9-C10 Aromatics	ND	mg/kg	2.00
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00
Benzene	ND	mg/kg	0.100
Toluene	ND	mg/kg	0.100
Ethylbenzene	ND	mg/kg	0.100
p/m-Xylene	ND	mg/kg	0.100
o-Xylene	ND	mg/kg	0.100
Methyl tert butyl ether	ND	mg/kg	0.200
Naphthalene	ND	mg/kg	1.00

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	104.	%	70-130
2,5-Dibromotoluene-FID	106.	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0309656-12
TRIP BLANK-CVOC LOW LEVEL
Sample Matrix: SOIL
Date Collected: 22-SEP-2003 09:00
Date Received : 25-SEP-2003
Date Reported : 03-OCT-2003
Condition of Sample: Satisfactory
Field Prep: None
Number & Type of Containers: 2-Vial

Comments:
Results are reported on an 'AS RECEIVED' basis.

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics 8260 via Low 5035				1 8260B		0930 03:38	BT
Methylene chloride	ND	ug/kg	10.				
1,1-Dichloroethane	ND	ug/kg	1.5				
Chloroform	ND	ug/kg	1.5				
Carbon tetrachloride	ND	ug/kg	1.0				
1,2-Dichloropropane	ND	ug/kg	3.5				
Dibromochloromethane	ND	ug/kg	1.0				
1,1,2-Trichloroethane	ND	ug/kg	1.5				
Tetrachloroethene	ND	ug/kg	1.0				
Chlorobenzene	ND	ug/kg	1.0				
Trichlorofluoromethane	ND	ug/kg	5.0				
1,2-Dichloroethane	ND	ug/kg	1.0				
1,1,1-Trichloroethane	ND	ug/kg	1.0				
Bromodichloromethane	ND	ug/kg	1.0				
trans 1,3-Dichloropropene	ND	ug/kg	1.0				
cis-1,3-Dichloropropene	ND	ug/kg	1.0				
Bromoform	ND	ug/kg	4.0				
1,1,2,2-Tetrachloroethane	ND	ug/kg	1.0				
Chloromethane	ND	ug/kg	5.0				
Bromomethane	ND	ug/kg	2.0				
Vinyl chloride	ND	ug/kg	2.0				
Chloroethane	ND	ug/kg	2.0				
1,1-Dichloroethene	ND	ug/kg	1.0				
trans-1,2-Dichloroethene	ND	ug/kg	1.5				
Trichloroethene	ND	ug/kg	1.0				
1,2-Dichlorobenzene	ND	ug/kg	5.0				
1,3-Dichlorobenzene	ND	ug/kg	5.0				
1,4-Dichlorobenzene	ND	ug/kg	5.0				
cis-1,2-Dichloroethene	ND	ug/kg	1.0				
Dichlorodifluoromethane	ND	ug/kg	10				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	113.	%	
Toluene-d8	116.	%	
4-Bromofluorobenzene	116	%	
Dibromofluoromethane	110	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0309656-13
SH-1
Sample Matrix: WATER
Date Collected: 25-SEP-2003 08:40
Date Received : 25-SEP-2003
Date Reported : 03-OCT-2003
Condition of Sample: Satisfactory
Field Prep: None
Number & Type of Containers: 2-Amber,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by GC/MS 8260				1 8260B		0930 13 32	BT
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
Trichlorofluoromethane	ND	ug/l	2.5				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans 1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Bromomethane	ND	ug/l	1.0				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0 75				
Trichloroethene	ND	ug/l	0 50				
1,2-Dichlorobenzene	ND	ug/l	2 5				
1,3-Dichlorobenzene	ND	ug/l	2 5				
1,4-Dichlorobenzene	ND	ug/l	2 5				
cis-1,2-Dichloroethene	ND	ug/l	0 50				
Dichlorodifluoromethane	ND	ug/l	5 0				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	107.	%	
Toluene-d8	101	%	
4-Bromofluorobenzene	110	%	
Dibromofluoromethane	104.	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-13
SH-1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		1001 17:01	MM

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C10 Aromatics	ND	ug/l	40.0
C5-C8 Aliphatics, Adjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Adjusted	ND	ug/l	40.0
Benzene	ND	ug/l	2.00
Toluene	ND	ug/l	2.00
Ethylbenzene	ND	ug/l	2.00
p/m-Xylene	ND	ug/l	2.00
o-Xylene	ND	ug/l	2.00
Methyl tert butyl ether	ND	ug/l	4.00
Naphthalene	ND	ug/l	20.0

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	110.	%	70-130
2,5-Dibromotoluene-FID	112.	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-13
SH-1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	1001 14:40	1003 01:34	BJ

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the EPH LCS recoveries were less than 40%.
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	ug/l	125.
C19-C36 Aliphatics	ND	ug/l	125.
C11-C22 Aromatics, Unadjusted	ND	ug/l	125.
C11-C22 Aromatics, Adjusted	ND	ug/l	125.
Naphthalene	ND	ug/l	25.0
2-Methylnaphthalene	ND	ug/l	25.0
Acenaphthylene	ND	ug/l	25.0
Acenaphthene	ND	ug/l	25.0
Fluorene	ND	ug/l	25.0
Phenanthrene	ND	ug/l	25.0
Anthracene	ND	ug/l	25.0
Fluoranthene	ND	ug/l	25.0
Pyrene	ND	ug/l	25.0
Benzo(a)anthracene	ND	ug/l	25.0
Chrysene	ND	ug/l	25.0
Benzo(b)fluoranthene	ND	ug/l	25.0
Benzo(k)fluoranthene	ND	ug/l	25.0
Benzo(a)pyrene	ND	ug/l	25.0
Indeno(1,2,3-cd)Pyrene	ND	ug/l	25.0
Dibenzo(a,h)anthracene	ND	ug/l	25.0
Benzo(g,h,i)perylene	ND	ug/l	25.0

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	58.0	%	40-140
o-Terphenyl	75.0	%	40-140
2-Fluorobiphenyl	69.0	%	40-140
2-Bromonaphthalene	69.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0309656-14
SH-2
Sample Matrix: WATER
Date Collected: 25-SEP-2003 10:00
Date Received : 25-SEP-2003
Date Reported : 03-OCT-2003

Condition of Sample: Satisfactory
Field Prep: None

Number & Type of Containers: 2-Amber,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260				1 8260B		0930 14:07	RY
Methylene chloride	ND	ug/l	25.				
1,1-Dichloroethane	ND	ug/l	3.8				
Chloroform	ND	ug/l	3.8				
Carbon tetrachloride	ND	ug/l	2.5				
1,2-Dichloropropane	ND	ug/l	8.8				
Dibromochloromethane	ND	ug/l	2.5				
1,1,2-Trichloroethane	ND	ug/l	3.8				
Tetrachloroethene	ND	ug/l	2.5				
Chlorobenzene	ND	ug/l	2.5				
Trichlorofluoromethane	ND	ug/l	12.				
1,2-Dichloroethane	ND	ug/l	2.5				
1,1,1-Trichloroethane	ND	ug/l	2.5				
Bromodichloromethane	ND	ug/l	2.5				
trans-1,3-Dichloropropene	ND	ug/l	2.5				
cis-1,3-Dichloropropene	ND	ug/l	2.5				
Bromoform	ND	ug/l	10.				
1,1,2,2-Tetrachloroethane	ND	ug/l	2.5				
Chloromethane	ND	ug/l	12.				
Bromomethane	ND	ug/l	5.0				
Vinyl chloride	ND	ug/l	5.0				
Chloroethane	ND	ug/l	5.0				
1,1-Dichloroethene	ND	ug/l	2.5				
trans-1,2-Dichloroethene	ND	ug/l	3.8				
Trichloroethene	ND	ug/l	2.5				
1,2-Dichlorobenzene	ND	ug/l	12.				
1,3-Dichlorobenzene	ND	ug/l	12.				
1,4-Dichlorobenzene	ND	ug/l	12.				
cis-1,2-Dichloroethene	ND	ug/l	2.5				
Dichlorodifluoromethane	ND	ug/l	25.				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	108.	%	
Toluene-d8	97.0	%	
4-Bromofluorobenzene	124.	%	
Dibromofluoromethane	105.	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-14
SH-2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		1001 17:51	MM

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	ug/l	80.0
C9-C12 Aliphatics, Unadjusted	2270	ug/l	80.0
C9-C10 Aromatics	1380	ug/l	80.0
C5-C8 Aliphatics, Adjusted	ND	ug/l	80.0
C9-C12 Aliphatics, Adjusted	882.	ug/l	80.0
Benzene	ND	ug/l	4.00
Toluene	ND	ug/l	4.00
Ethylbenzene	ND	ug/l	4.00
p/m-Xylene	ND	ug/l	4.00
o-Xylene	ND	ug/l	4.00
Methyl tert butyl ether	ND	ug/l	8.00
Naphthalene	ND	ug/l	40.0

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	129.	%	70-130
2,5-Dibromotoluene-FID	129.	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-14
SH-2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	1001 14:40	1003 03:10	AJ

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the EPH LCS recoveries were less than 40%.
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

PARAMETER	RESULT	UNITS	RDL
C9-C18 Aliphatics	2390	ug/l	105.
C19-C36 Aliphatics	270.	ug/l	105.
C11-C22 Aromatics, Unadjusted	323.	ug/l	105.
C11-C22 Aromatics, Adjusted	323.	ug/l	105.
Naphthalene	ND	ug/l	21.0
2-Methylnaphthalene	ND	ug/l	21.0
Acenaphthylene	ND	ug/l	21.0
Acenaphthene	ND	ug/l	21.0
Fluorene	ND	ug/l	21.0
Phenanthrene	ND	ug/l	21.0
Anthracene	ND	ug/l	21.0
Fluoranthene	ND	ug/l	21.0
Pyrene	ND	ug/l	21.0
Benzo(a)anthracene	ND	ug/l	21.0
Chrysene	ND	ug/l	21.0
Benzo(b)fluoranthene	ND	ug/l	21.0
Benzo(k)fluoranthene	ND	ug/l	21.0
Benzo(a)pyrene	ND	ug/l	21.0
Indeno(1,2,3-cd)Pyrene	ND	ug/l	21.0
Dibenzo(a,h)anthracene	ND	ug/l	21.0
Benzo(g,h,i)perylene	ND	ug/l	21.0

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	42.0	%	40-140
o-Terphenyl	81.0	%	40-140
2-Fluorobiphenyl	75.0	%	40-140
2-Bromonaphthalene	76.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0309656-15 Date Collected: 25-SEP-2003 10:00
SH-3 Date Received : 25-SEP-2003
Sample Matrix: WATER Date Reported : 03-OCT-2003

Condition of Sample: Satisfactory Field Prep: None

Number & Type of Containers: 2-Amber,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260				1 8260B		0930 14:43	KY
Methylene chloride	ND	ug/l	50.				
1,1-Dichloroethane	ND	ug/l	7.5				
Chloroform	ND	ug/l	7.5				
Carbon tetrachloride	ND	ug/l	5.0				
1,2-Dichloropropane	ND	ug/l	18.				
Dibromochloromethane	ND	ug/l	5.0				
1,1,2-Trichloroethane	ND	ug/l	7.5				
Tetrachloroethene	ND	ug/l	5.0				
Chlorobenzene	ND	ug/l	5.0				
Trichlorofluoromethane	ND	ug/l	25.				
1,2-Dichloroethane	ND	ug/l	5.0				
1,1,1-Trichloroethane	ND	ug/l	5.0				
Bromodichloromethane	ND	ug/l	5.0				
trans-1,3-Dichloropropene	ND	ug/l	5.0				
cis-1,3-Dichloropropene	ND	ug/l	5.0				
Bromoform	ND	ug/l	20.				
1,1,2,2-Tetrachloroethane	ND	ug/l	5.0				
Chloromethane	ND	ug/l	25.				
Bromomethane	ND	ug/l	10.				
Vinyl chloride	ND	ug/l	10.				
Chloroethane	ND	ug/l	10.				
1,1-Dichloroethene	ND	ug/l	5.0				
trans-1,2-Dichloroethene	ND	ug/l	7.5				
Trichloroethene	ND	ug/l	5.0				
1,2-Dichlorobenzene	ND	ug/l	25.				
1,3-Dichlorobenzene	ND	ug/l	25.				
1,4-Dichlorobenzene	ND	ug/l	25.				
cis-1,2-Dichloroethene	ND	ug/l	5.0				
Dichlorodifluoromethane	ND	ug/l	50.				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	106.	%	
Toluene-d8	101.	%	
4-Bromofluorobenzene	105.	%	
Dibromofluoromethane	101.	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-15
SH-3

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		1001 18:41	MM

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

PARAMETER	RESULT	UNITS	RDL
C5-C8 Aliphatics, Unadjusted	ND	ug/l	100.
C9-C12 Aliphatics, Unadjusted	1880	ug/l	100.
C9-C10 Aromatics	1730	ug/l	100.
C5-C8 Aliphatics, Adjusted	ND	ug/l	100.
C9-C12 Aliphatics, Adjusted	135.	ug/l	100.
Benzene	ND	ug/l	5.00
Toluene	ND	ug/l	5.00
Ethylbenzene	ND	ug/l	5.00
p/m-Xylene	18.0	ug/l	5.00
o-Xylene	ND	ug/l	5.00
Methyl tert butyl ether	ND	ug/l	10.0
Naphthalene	ND	ug/l	50.0

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	123.	%	70-130
2,5-Dibromotoluene-FID	118.	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-15
SH-3

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	1001 14:10	1003 20:49	AJ

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

PARAMETER	RESULT	UNITS	RDL
C9-C18 Aliphatics	ND	ug/l	119.
C19-C36 Aliphatics	ND	ug/l	119.
C11-C22 Aromatics, Unadjusted	ND	ug/l	119.
C11-C22 Aromatics, Adjusted	ND	ug/l	119.
Naphthalene	ND	ug/l	23.8
2-Methylnaphthalene	ND	ug/l	23.8
Acenaphthylene	ND	ug/l	23.8
Acenaphthene	ND	ug/l	23.8
Fluorene	ND	ug/l	23.8
Phenanthrene	ND	ug/l	23.8
Anthracene	ND	ug/l	23.8
Fluoranthene	ND	ug/l	23.8
Pyrene	ND	ug/l	23.8
Benzo(a)anthracene	ND	ug/l	23.8
Chrysene	ND	ug/l	23.8
Benzo(b)fluoranthene	ND	ug/l	23.8
Benzo(k)fluoranthene	ND	ug/l	23.8
Benzo(a)pyrene	ND	ug/l	23.8
Indeno(1,2,3-cd)Pyrene	ND	ug/l	23.8
Dibenzo(a,h)anthracene	ND	ug/l	23.8
Benzo(g,h,i)perylene	ND	ug/l	23.8

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	40.0	%	40-140
o-Terphenyl	74.0	%	40-140
2-Fluorobiphenyl	77.0	%	40-140
2-Bromonaphthalene	82.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0309656-16 SH-4
Sample Matrix: WATER
Condition of Sample: Satisfactory
Number & Type of Containers: 2-Amber,4-Vial

Date Collected: 25-SEP-2003 14:00
Date Received : 25-SEP-2003
Date Reported : 03-OCT-2003
Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by GC/MS 8260				1 8260B		0930 23:50	RY
Methylene chloride	ND	ug/l	120				
1,1-Dichloroethane	ND	ug/l	19.				
Chloroform	ND	ug/l	19.				
Carbon tetrachloride	ND	ug/l	12.				
1,2-Dichloropropane	ND	ug/l	44.				
Dibromochloromethane	ND	ug/l	12.				
1,1,2-Trichloroethane	ND	ug/l	19.				
Tetrachloroethene	ND	ug/l	12.				
Chlorobenzene	ND	ug/l	12.				
Trichlorofluoromethane	ND	ug/l	62.				
1,2-Dichloroethane	ND	ug/l	12.				
1,1,1-Trichloroethane	ND	ug/l	12.				
Bromodichloromethane	ND	ug/l	12.				
trans-1,3-Dichloropropene	ND	ug/l	12.				
cis-1,3-Dichloropropene	ND	ug/l	12.				
Bromoform	ND	ug/l	50.				
1,1,2,2-Tetrachloroethane	ND	ug/l	12.				
Chloromethane	ND	ug/l	62.				
Bromomethane	ND	ug/l	25.				
Vinyl chloride	ND	ug/l	25.				
Chloroethane	ND	ug/l	25.				
1,1-Dichloroethene	ND	ug/l	12.				
trans-1,2-Dichloroethene	ND	ug/l	19.				
Trichloroethene	ND	ug/l	12.				
1,2-Dichlorobenzene	ND	ug/l	62.				
1,3-Dichlorobenzene	ND	ug/l	62.				
1,4-Dichlorobenzene	ND	ug/l	62.				
cis-1,2-Dichloroethene	ND	ug/l	12.				
Dichlorodifluoromethane	ND	ug/l	120				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	111.	%					
Toluene-d8	101.	%					
4-Bromofluorobenzene	104.	%					
Dibromofluoromethane	104.	%					

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-16 SH-4

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Petroleum Hydrocarbons				47 98-1		1001 19:31	[illegible]

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

PARAMETER	RESULT	UNITS	RDL
C5-C8 Aliphatics, Unadjusted	ND	ug/l	400.
C9-C12 Aliphatics, Unadjusted	3470	ug/l	400.
C9-C10 Aromatics	3320	ug/l	400.
C5-C8 Aliphatics, Adjusted	ND	ug/l	400.
C9-C12 Aliphatics, Adjusted	ND	ug/l	400.
Benzene	ND	ug/l	20.0
Toluene	ND	ug/l	20.0
Ethylbenzene	ND	ug/l	20.0
p/m-Xylene	ND	ug/l	20.0
o-Xylene	ND	ug/l	20.0
Methyl tert butyl ether	ND	ug/l	40.0
Naphthalene	ND	ug/l	200.
Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	112.	%	70-130
2,5-Dibromotoluene-FID	113.	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-16 SH-4

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Extractable Petroleum Hydrocarbons				46 98-1	1001 16:40	1003 02:56	BJ

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the EPH LCS recoveries were less than 40%.
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

PARAMETER	RESULT	UNITS	RDL
C9-C18 Aliphatics	2820	ug/l	112.
C19-C36 Aliphatics	147.	ug/l	112.
C11-C22 Aromatics, Unadjusted	294.	ug/l	112.
C11-C22 Aromatics, Adjusted	294.	ug/l	112.
Naphthalene	ND	ug/l	22.5
2-Methylnaphthalene	ND	ug/l	22.5
Acenaphthylene	ND	ug/l	22.5
Acenaphthene	ND	ug/l	22.5
Fluorene	ND	ug/l	22.5
Phenanthrene	ND	ug/l	22.5
Anthracene	ND	ug/l	22.5
Fluoranthene	ND	ug/l	22.5
Pyrene	ND	ug/l	22.5
Benzo(a)anthracene	ND	ug/l	22.5
Chrysene	ND	ug/l	22.5
Benzo(b)fluoranthene	ND	ug/l	22.5
Benzo(k)fluoranthene	ND	ug/l	22.5
Benzo(a)pyrene	ND	ug/l	22.5
Indeno(1,2,3-cd)Pyrene	ND	ug/l	22.5
Dibenzo(a,h)anthracene	ND	ug/l	22.5
Benzo(g,h,i)perylene	ND	ug/l	22.5
Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	44.0	%	40-140
o-Terphenyl	75.0	%	40-140
2-Fluorobiphenyl	67.0	%	40-140
2-Bromonaphthalene	67.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA535 Army:USACE

Laboratory Sample Number: L0309656-17 SH-5
Sample Matrix: WATER
Condition of Sample: Satisfactory
Number & Type of Containers: 2-Amber,4-Vial

Date Collected: 25-SEP-2003 12:45
Date Received : 25-SEP-2003
Date Reported : 03-OCT-2003
Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by GC/MS 8260				1 8260B		1001 00:20	RY
Methylene chloride	ND	ug/l	12.				
1,1-Dichloroethane	ND	ug/l	1.9				
Chloroform	ND	ug/l	1.9				
Carbon tetrachloride	ND	ug/l	1.2				
1,2-Dichloropropane	ND	ug/l	4.4				
Dibromochloromethane	ND	ug/l	1.2				
1,1,2-Trichloroethane	ND	ug/l	1.9				
Tetrachloroethene	ND	ug/l	1.2				
Chlorobenzene	ND	ug/l	1.2				
Trichlorofluoromethane	ND	ug/l	6.2				
1,2-Dichloroethane	ND	ug/l	1.2				
1,1,1-Trichloroethane	ND	ug/l	1.2				
Bromodichloromethane	ND	ug/l	1.2				
trans-1,3-Dichloropropene	ND	ug/l	1.2				
cis-1,3-Dichloropropene	ND	ug/l	1.2				
Bromoform	ND	ug/l	5.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	1.2				
Chloromethane	ND	ug/l	6.2				
Bromomethane	ND	ug/l	2.5				
Vinyl chloride	ND	ug/l	2.5				
Chloroethane	ND	ug/l	2.5				
1,1-Dichloroethene	ND	ug/l	1.2				
trans-1,2-Dichloroethene	ND	ug/l	1.9				
Trichloroethene	ND	ug/l	1.2				
1,2-Dichlorobenzene	ND	ug/l	6.2				
1,3-Dichlorobenzene	ND	ug/l	6.2				
1,4-Dichlorobenzene	ND	ug/l	6.2				
cis-1,2-Dichloroethene	ND	ug/l	1.2				
Dichlorodifluoromethane	ND	ug/l	12.				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	110.	%					
Toluene-d8	99.0	%					
4-Bromofluorobenzene	115.	%					
Dibromofluoromethane	102.	%					

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-17
SH-5

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		1001 15:31	MM

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

PARAMETER	RESULT	UNITS	RDL
C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Unadjusted	427.	ug/l	40.0
C9-C10 Aromatics	343.	ug/l	40.0
C5-C8 Aliphatics, Adjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Adjusted	84.3	ug/l	40.0
Benzene	ND	ug/l	2.00
Toluene	ND	ug/l	2.00
Ethylbenzene	ND	ug/l	2.00
p/m-Xylene	ND	ug/l	2.00
o-Xylene	ND	ug/l	2.00
Methyl tert butyl ether	ND	ug/l	4.00
Naphthalene	ND	ug/l	20.0

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	117.	%	70-130
2,5 Dibromotoluene-FID	116.	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-17
SH-5

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	1001 14:10	1002 20:50	AJ

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the extraction surrogate recoveries were less than 40%.
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

PARAMETER	RESULT	UNITS	RDL
C9-C18 Aliphatics	ND	ug/l	111.
C19-C36 Aliphatics	ND	ug/l	111.
C11-C22 Aromatics, Unadjusted	ND	ug/l	111.
C11-C22 Aromatics, Adjusted	ND	ug/l	111.
Naphthalene	ND	ug/l	22.2
2-Methylnaphthalene	ND	ug/l	22.2
Acenaphthylene	ND	ug/l	22.2
Acenaphthene	ND	ug/l	22.2
Fluorene	ND	ug/l	22.2
Phenanthrene	ND	ug/l	22.2
Anthracene	ND	ug/l	22.2
Fluoranthene	ND	ug/l	22.2
Pyrene	ND	ug/l	22.2
Benzo(a)anthracene	ND	ug/l	22.2
Chrysene	ND	ug/l	22.2
Benzo(b)fluoranthene	ND	ug/l	22.2
Benzo(k)fluoranthene	ND	ug/l	22.2
Benzo(a)pyrene	ND	ug/l	22.2
Indeno(1,2,3-cd)Pyrene	ND	ug/l	22.2
Dibenzo(a,h)anthracene	ND	ug/l	22.2
Benzo(g,h,i)perylene	ND	ug/l	22.2

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	34.0	%	40-140
o-Terphenyl	69.0	%	40-140
2-Fluorobiphenyl	72.0	%	40-140
2-Bromonaphthalene	77.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0309656-18
SH-6
Sample Matrix: WATER
Condition of Sample: Satisfactory
Number & Type of Containers: 2-Amber,4-Vial

Date Collected: 25-SEP-2003 12:00
Date Received : 25-SEP-2003
Date Reported : 03-OCT-2003
Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260				1 8260B		0930 22:40	RT
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
Trichlorofluoromethane	ND	ug/l	2.5				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Bromomethane	ND	ug/l	1.0				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	108	%	
Toluene-d8	102.	%	
4-Bromofluorobenzene	108	%	
Dibromofluoromethane	103	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-18
SH-6

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		1001 20:31	MM

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.1? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

PARAMETER	RESULT	UNITS	RDL
C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C10 Aromatics	ND	ug/l	40.0
C5-C8 Aliphatics, Adjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Adjusted	ND	ug/l	40.0
Benzene	ND	ug/l	2.00
Toluene	ND	ug/l	2.00
Ethylbenzene	ND	ug/l	2.00
p/m-Xylene	ND	ug/l	2.00
o-Xylene	ND	ug/l	2.00
Methyl tert butyl ether	ND	ug/l	4.00
Naphthalene	ND	ug/l	20.0

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	91.0	%	70-130
2,5-Dibromotoluene-FID	98.0	%	70-110

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-18
SH-6

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	1001 14:35	1002 21:47	RJ

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the extraction surrogate recoveries were less than 40%.
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecene and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	ug/l	120.
C19-C36 Aliphatics	ND	ug/l	120.
C11-C22 Aromatics, Unadjusted	ND	ug/l	120.
C11-C22 Aromatics, Adjusted	ND	ug/l	120.
Naphthalene	ND	ug/l	24.1
2-Methylnaphthalene	ND	ug/l	24.1
Acenaphthylene	ND	ug/l	24.1
Acenaphthene	ND	ug/l	24.1
Fluorene	ND	ug/l	24.1
Phenanthrene	ND	ug/l	24.1
Anthracene	ND	ug/l	24.1
Fluoranthene	ND	ug/l	24.1
Pyrene	ND	ug/l	24.1
Benzo(a)anthracene	ND	ug/l	24.1
Chrysene	ND	ug/l	24.1
Benzo(b)fluoranthene	ND	ug/l	24.1
Benzo(k)fluoranthene	ND	ug/l	24.1
Benzo(a)pyrene	ND	ug/l	24.1
Indeno(1,2,3-cd)Pyrene	ND	ug/l	24.1
Dibenzo(a,h)anthracene	ND	ug/l	24.1
Benzo(g,h,i)perylene	ND	ug/l	24.1

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecene	30.0	%	40-140
o-Terphenyl	69.0	%	40-140
2-Fluorobiphenyl	65.0	%	40-140
2-Bromonaphthalene	73.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0309656-19
SH-7
Sample Matrix: WATER
Date Collected: 25-SEP-2003 11:00
Date Received : 25-SEP-2003
Date Reported : 03-OCT-2003

Condition of Sample: Satisfactory
Field Prep: None

Number & Type of Containers: 2-Amber,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260				1 8260B		0930 23:15	RY
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0.50				
Chlorobenzene	0.58	ug/l	0.50				
Trichlorofluoromethane	ND	ug/l	2.5				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Bromomethane	ND	ug/l	1.0				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
cis-1,2-Dichloroethene	5.9	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	111.	%	
Toluene-d8	100.	%	
4-Bromofluorobenzene	130.	%	
Dibromofluoromethane	105.	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-19
SH-7

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		1002 21:11	[illegible]

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Unadjusted	218.	ug/l	40.0
C9-C10 Aromatics	165.	ug/l	40.0
C5-C8 Aliphatics, Adjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Adjusted	53.3	ug/l	40.0
Benzene	ND	ug/l	2.00
Toluene	ND	ug/l	2.00
Ethylbenzene	ND	ug/l	2.00
p/m-Xylene	ND	ug/l	2.00
o-Xylene	ND	ug/l	2.00
Methyl tert butyl ether	ND	ug/l	4.00
Naphthalene	ND	ug/l	20.0

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	96.0	%	70-130
2,5-Dibromotoluene-FID	98.0	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-19
SH-7

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	1001 14:15	1002 22:34	RJ

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the extraction surrogate recoveries were less than 40%.
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	ug/l	116.
C19-C36 Aliphatics	ND	ug/l	116.
C11-C22 Aromatics, Unadjusted	ND	ug/l	116.
C11-C22 Aromatics, Adjusted	ND	ug/l	116.
Naphthalene	ND	ug/l	23.2
2-Methylnaphthalene	ND	ug/l	23.2
Acenaphthylene	ND	ug/l	23.2
Acenaphthene	ND	ug/l	23.2
Fluorene	ND	ug/l	23.2
Phenanthrene	ND	ug/l	23.2
Anthracene	ND	ug/l	23.2
Fluoranthene	ND	ug/l	23.2
Pyrene	ND	ug/l	23.2
Benzo(a)anthracene	ND	ug/l	23.2
Chrysene	ND	ug/l	23.2
Benzo(b)fluoranthene	ND	ug/l	23.2
Benzo(k)fluoranthene	ND	ug/l	23.2
Benzo(a)pyrene	ND	ug/l	23.2
Indeno(1,2,3-cd)Pyrene	ND	ug/l	23.2
Dibenzo(a,h)anthracene	ND	ug/l	23.2
Benzo(g,h,i)perylene	ND	ug/l	23.2

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	20.0	%	40-140
o-Terphenyl	70.0	%	40-140
2-Fluorobiphenyl	65.0	%	40-140
2-Bromonaphthalene	68.0	%	40-140

Comments Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number:	L0309656-20 GP-1	**Date Collected:**	25-SEP-2003 12:45
		Date Received :	25-SEP-2003
Sample Matrix:	WATER	**Date Reported :**	03-OCT-2003
Condition of Sample:	Satisfactory	**Field Prep:**	None

Number & Type of Containers: 2-Amber,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260				1 8260B		0930 03:37	RT
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
Trichlorofluoromethane	ND	ug/l	2.5				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Bromomethane	ND	ug/l	1.0				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	95.0	%	
Toluene-d8	94.0	%	
4-Bromofluorobenzene	123.	%	
Dibromofluoromethane	91.0	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-20
GP-1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98 1		1001 22 01	[illegible]

Quality Control Information

Condition of sample received:	Satisfactory	
Aqueous preservative:	Laboratory Provided Preserved Container	
Sample temperature upon receipt:	Received on Ice	
Were all QA/QC procedures REQUIRED by the method followed?		YES
Were all performance/acceptance standards for the required procedures achieved?		YES
Were significant modifications made to the method as specified in Sect 11.3?		NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

PARAMETER	RESULT	UNITS	RDL
C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Unadjusted	414.	ug/l	40.0
C9-C10 Aromatics	354.	ug/l	40.0
C5-C8 Aliphatics, Adjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Adjusted	59.4	ug/l	40.0
Benzene	ND	ug/l	2.00
Toluene	ND	ug/l	2.00
Ethylbenzene	ND	ug/l	2.00
p/m-Xylene	ND	ug/l	2.00
o-Xylene	ND	ug/l	2.00
Methyl tert butyl ether	ND	ug/l	4.00
Naphthalene	ND	ug/l	20.0

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	101.	%	70-130
2,5-Dibromotoluene-FID	95.0	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-20
GP-1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				44 98 1	1001 16:40	1003 03:41	RJ

Quality Control Information

Condition of sample received:	Satisfactory	
Aqueous preservative:	Laboratory Provided Preserved Container	
Sample temperature upon receipt:	Received on Ice	
Sample extraction method:	Extracted Per the Method	
Were all QA/QC procedures REQUIRED by the method followed?		YES
Were all performance/acceptance standards for the required procedures achieved?		NO

1. One or more of the EPH LCS recoveries were less than 40%.

Were significant modifications made to the method as specified in Sect 11.3? NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

PARAMETER	RESULT	UNITS	RDL
C9-C18 Aliphatics	ND	ug/l	109.
C19-C36 Aliphatics	ND	ug/l	109.
C11-C22 Aromatics, Unadjusted	ND	ug/l	109.
C11-C22 Aromatics, Adjusted	ND	ug/l	109.
Naphthalene	ND	ug/l	21.7
2-Methylnaphthalene	ND	ug/l	21.7
Acenaphthylene	ND	ug/l	21.7
Acenaphthene	ND	ug/l	21.7
Fluorene	ND	ug/l	21.7
Phenanthrene	ND	ug/l	21.7
Anthracene	ND	ug/l	21.7
Fluoranthene	ND	ug/l	21.7
Pyrene	ND	ug/l	21.7
Benzo(a)anthracene	ND	ug/l	21.7
Chrysene	ND	ug/l	21.7
Benzo(b)fluoranthene	ND	ug/l	21.7
Benzo(k)fluoranthene	ND	ug/l	21.7
Benzo(a)pyrene	ND	ug/l	21.7
Indeno(1,2,3-cd)Pyrene	ND	ug/l	21.7
Dibenzo(a,h)anthracene	ND	ug/l	21.7
Benzo(g,h,i)perylene	ND	ug/l	21.7

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	59.0	%	40-140
o-Terphenyl	78.0	%	40-140
2-Fluorobiphenyl	75.0	%	40-140
2-Bromonaphthalene	75.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number:	L0309656-21 GP-4	**Date Collected:**	25-SEP-2003 11:00
		Date Received :	25-SEP-2003
Sample Matrix:	WATER	**Date Reported :**	03-OCT-2003
Condition of Sample:	Satisfactory	**Field Prep:**	None

Number & Type of Containers: 2-Amber,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260				1 8260B		1002 11:26	RT
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
Trichlorofluoromethane	ND	ug/l	2.5				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Bromomethane	ND	ug/l	1.0				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	101.	%	
Toluene-d8	101.	%	
4-Bromofluorobenzene	106.	%	
Dibromofluoromethane	101.	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-21
GP-4

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		1001 22:51	MM

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C10 Aromatics	ND	ug/l	40.0
C5-C8 Aliphatics, Adjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Adjusted	ND	ug/l	40.0
Benzene	ND	ug/l	2.00
Toluene	ND	ug/l	2.00
Ethylbenzene	ND	ug/l	2.00
p/m-Xylene	ND	ug/l	2.00
o-Xylene	ND	ug/l	2.00
Methyl tert butyl ether	ND	ug/l	4.00
Naphthalene	ND	ug/l	20.0

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	104.	%	70-130
2,5-Dibromotoluene-FID	108.	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-21
GP-4

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	1001 15:40	1001 04:27	AJ

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the EPH LCS recoveries were less than 40%.
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	ug/l	104.
C19-C36 Aliphatics	ND	ug/l	104.
C11-C22 Aromatics, Unadjusted	ND	ug/l	104.
C11-C22 Aromatics, Adjusted	ND	ug/l	104.
Naphthalene	ND	ug/l	20.8
2-Methylnaphthalene	ND	ug/l	20.8
Acenaphthylene	ND	ug/l	20.8
Acenaphthene	ND	ug/l	20.8
Fluorene	ND	ug/l	20.8
Phenanthrene	ND	ug/l	20.8
Anthracene	ND	ug/l	20.8
Fluoranthene	ND	ug/l	20.8
Pyrene	ND	ug/l	20.8
Benzo(a)anthracene	ND	ug/l	20.8
Chrysene	ND	ug/l	20.8
Benzo(b)fluoranthene	ND	ug/l	20.8
Benzo(k)fluoranthene	ND	ug/l	20.8
Benzo(a)pyrene	ND	ug/l	20.8
Indeno(1,2,3-cd)Pyrene	ND	ug/l	20.8
Dibenzo(a,h)anthracene	ND	ug/l	20.8
Benzo(g,h,i)perylene	ND	ug/l	20.8

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	52.0	%	40-140
o-Terphenyl	73.0	%	40-140
2-Fluorobiphenyl	82.0	%	40-140
2-Bromonaphthalene	81.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0309656-22 **Date Collected:** 25-SEP-2003 14:45
ET-1 **Date Received :** 25-SEP-2003
Sample Matrix: WATER **Date Reported :** 03-OCT-2003

Condition of Sample: Satisfactory **Field Prep:** None

Number & Type of Containers: 2-Amber,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260				1 8260B		0930 05:00	BT
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
Trichlorofluoromethane	ND	ug/l	2.5				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Bromomethane	ND	ug/l	1.0				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	94.0	%	
Toluene-d8	94.0	%	
4-Bromofluorobenzene	97.0	%	
Dibromofluoromethane	88.0	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-22
ET-1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		1001 23:41	MM

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C10 Aromatics	ND	ug/l	40.0
C5-C8 Aliphatics, Adjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Adjusted	ND	ug/l	40.0
Benzene	ND	ug/l	2.00
Toluene	ND	ug/l	2.00
Ethylbenzene	ND	ug/l	2.00
p/m-Xylene	ND	ug/l	2.00
o-Xylene	ND	ug/l	2.00
Methyl tert butyl ether	ND	ug/l	4.00
Naphthalene	ND	ug/l	20.0

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	90.0	%	70-130
2,5-Dibromotoluene-FID	92.0	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-22
ET-1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	1002 14:40	1003 05:11	BJ

Quality Control Information

Condition of sample received:	Satisfactory
Aqueous preservative:	Laboratory Provided Preserved Container
Sample temperature upon receipt:	Received on Ice
Sample extraction method:	Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	NO
1. One or more of the EPH LCS recoveries were less than 40%	
Were significant modifications made to the method as specified in Sect 11.3?	NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	ug/l	109.
C19-C36 Aliphatics	ND	ug/l	109.
C11-C22 Aromatics, Unadjusted	ND	ug/l	109.
C11-C22 Aromatics, Adjusted	ND	ug/l	109.
Naphthalene	ND	ug/l	21.7
2-Methylnaphthalene	ND	ug/l	21.7
Acenaphthylene	ND	ug/l	21.7
Acenaphthene	ND	ug/l	21.7
Fluorene	ND	ug/l	21.7
Phenanthrene	ND	ug/l	21.7
Anthracene	ND	ug/l	21.7
Fluoranthene	ND	ug/l	21.7
Pyrene	ND	ug/l	21.7
Benzo(a)anthracene	ND	ug/l	21.7
Chrysene	ND	ug/l	21.7
Benzo(b)fluoranthene	ND	ug/l	21.7
Benzo(k)fluoranthene	ND	ug/l	21.7
Benzo(a)pyrene	ND	ug/l	21.7
Indeno(1,2,3-cd)Pyrene	ND	ug/l	21.7
Dibenzo(a,h)anthracene	ND	ug/l	21.7
Benzo(g,h,i)perylene	ND	ug/l	21.7

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	51.0	%	40-140
o-Terphenyl	80.0	%	40-140
2-Fluorobiphenyl	87.0	%	40-140
2 Bromonaphthalene	87.0	%	40-140

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number:	L0309656-23 ET-2	Date Collected:	25-SEP-2003 14:00
		Date Received :	25-SEP-2003
Sample Matrix:	WATER	Date Reported :	03-OCT-2003
Condition of Sample:	Satisfactory	Field Prep:	None

Number & Type of Containers: 2-Amber,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260				1 8260B		0930 05 41	BT
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
Trichlorofluoromethane	ND	ug/l	2.5				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Bromomethane	ND	ug/l	1.0				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	95.0	%	
Toluene-d8	93.0	%	
4-Bromofluorobenzene	138.	%	
Dibromofluoromethane	89.0	%	

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-23
ET-2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		1002 11 01	MM

Quality Control Information

Condition of sample received:	Satisfactory
Aqueous preservative:	Laboratory Provided Preserved Container
Sample temperature upon receipt:	Received on Ice
Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Unadjusted	408.	ug/l	40.0
C9-C10 Aromatics	334.	ug/l	40.0
C5-C8 Aliphatics, Adjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Adjusted	73.7	ug/l	40.0
Benzene	ND	ug/l	2.00
Toluene	ND	ug/l	2.00
Ethylbenzene	ND	ug/l	2.00
p/m-Xylene	ND	ug/l	2.00
o-Xylene	ND	ug/l	2.00
Methyl tert butyl ether	ND	ug/l	4.00
Naphthalene	ND	ug/l	20.0

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	115.	%	70-130
2,5-Dibromotoluene-FID	121.	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0309656-23
ET-2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	1001 14:00	1003 05 54	BJ

Quality Control Information

Condition of sample received:	Satisfactory
Aqueous preservative	Laboratory Provided Preserved Container
Sample temperature upon receipt:	Received on Ice
Sample extraction method:	Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	NO
1. One or more of the EPH LCS recoveries were less than 40%.	
Were significant modifications made to the method as specified in Sect 11.3?	NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	ug/l	108.
C19-C36 Aliphatics	115.	ug/l	108.
C11-C22 Aromatics, Unadjusted	134.	ug/l	108.
C11-C22 Aromatics, Adjusted	134	ug/l	108.
Naphthalene	ND	ug/l	21.5
2-Methylnaphthalene	ND	ug/l	21.5
Acenaphthylene	ND	ug/l	21.5
Acenaphthene	ND	ug/l	21.5
Fluorene	ND	ug/l	21.5
Phenanthrene	ND	ug/l	21.5
Anthracene	ND	ug/l	21.5
Fluoranthene	ND	ug/l	21.5
Pyrene	ND	ug/l	21.5
Benzo(a)anthracene	ND	ug/l	21.5
Chrysene	ND	ug/l	21.5
Benzo(b)fluoranthene	ND	ug/l	21.5
Benzo(k)fluoranthene	ND	ug/l	21.5
Benzo(a)pyrene	ND	ug/l	21.5
Indeno(1,2,3-cd)Pyrene	ND	ug/l	21.5
Dibenzo(a,h)anthracene	ND	ug/l	21.5
Benzo(g,h,i)perylene	ND	ug/l	21.5

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	72.0	%	40-140
o-Terphenyl	85.0	%	40-140
2-Fluorobiphenyl	86.0	%	40-140
2-Bromonaphthalene	85.0	%	40-140

Comments. Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0309656-24 Date Collected: 22-SEP-2003 09:00
TRIP BLANK-VPH DELUX Date Received : 25-SEP-2003
Sample Matrix: WATER Date Reported : 03-OCT-2003

Condition of Sample: Satisfactory Field Prep: None

Number & Type of Containers: 1-Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47	98-1		1001 14:31	[illegible]

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

PARAMETER	RESULT	UNITS	RDL
C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C10 Aromatics	ND	ug/l	40.0
C5-C8 Aliphatics, Adjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Adjusted	ND	ug/l	40.0
Benzene	ND	ug/l	2.00
Toluene	ND	ug/l	2.00
Ethylbenzene	ND	ug/l	2.00
p/m-Xylene	ND	ug/l	2.00
o-Xylene	ND	ug/l	2.00
Methyl tert butyl ether	ND	ug/l	4.00
Naphthalene	ND	ug/l	20.0

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	120.	%	70-130
2,5-Dibromotoluene-FID	121.	%	70-130

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0309656-25 Date Collected: 22-SEP-2003 09:00
TRIP BLANK-CVOC 8021 Date Received : 25-SEP-2003
Sample Matrix: WATER Date Reported : 03-OCT-2003

Condition of Sample: Satisfactory Field Prep: None

Number & Type of Containers: 1-Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260				1	8260B		1001 19:16	MT
Methylene chloride	ND	ug/l	5.0					
1,1-Dichloroethane	ND	ug/l	0.75					
Chloroform	ND	ug/l	0.75					
Carbon tetrachloride	ND	ug/l	0.50					
1,2-Dichloropropane	ND	ug/l	1.8					
Dibromochloromethane	ND	ug/l	0.50					
1,1,2-Trichloroethane	ND	ug/l	0.75					
Tetrachloroethene	ND	ug/l	0.50					
Chlorobenzene	ND	ug/l	0.50					
Trichlorofluoromethane	ND	ug/l	2.5					
1,2-Dichloroethane	ND	ug/l	0.50					
1,1,1-Trichloroethane	ND	ug/l	0.50					
Bromodichloromethane	ND	ug/l	0.50					
trans-1,3-Dichloropropene	ND	ug/l	0.50					
cis-1,3-Dichloropropene	ND	ug/l	0.50					
Bromoform	ND	ug/l	2.0					
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50					
Chloromethane	ND	ug/l	2.5					
Bromomethane	ND	ug/l	1.0					
Vinyl chloride	ND	ug/l	1.0					
Chloroethane	ND	ug/l	1.0					
1,1-Dichloroethene	ND	ug/l	0.50					
trans-1,2-Dichloroethene	ND	ug/l	0.75					
Trichloroethene	ND	ug/l	0.50					
1,2-Dichlorobenzene	ND	ug/l	2.5					
1,3-Dichlorobenzene	ND	ug/l	2.5					
1,4-Dichlorobenzene	ND	ug/l	2.5					
cis-1,2-Dichloroethene	ND	ug/l	0.50					
Dichlorodifluoromethane	ND	ug/l	5.0					

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	94.0	%	
Toluene-d8	90.0	%	
4-Bromofluorobenzene	92.0	%	
Dibromofluoromethane	84.0	%	

Comments: Complete list of References and Glossary of Terms found in Addendum 1

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0309656

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01,03,05,07-10 (L0309475-01, WG151684)					
Solids, Total	96.	96.	%	0	
Volatile Organics 8260 via Low 5035 for sample(s) 01,05,08,10,12 (L0309668-02, WG151976)					
Methylene chloride	ND	ND	ug/kg	NC	
1,1-Dichloroethane	ND	ND	ug/kg	NC	
Chloroform	ND	ND	ug/kg	NC	
Carbon tetrachloride	ND	ND	ug/kg	NC	
1,2-Dichloropropane	ND	ND	ug/kg	NC	
Dibromochloromethane	ND	ND	ug/kg	NC	
1,1,2-Trichloroethane	ND	ND	ug/kg	NC	
Tetrachloroethene	ND	ND	ug/kg	NC	
Chlorobenzene	ND	ND	ug/kg	NC	
Trichlorofluoromethane	ND	ND	ug/kg	NC	
1,2-Dichloroethane	ND	ND	ug/kg	NC	
1,1,1-Trichloroethane	ND	ND	ug/kg	NC	
Bromodichloromethane	ND	ND	ug/kg	NC	
trans-1,3-Dichloropropene	ND	ND	ug/kg	NC	
cis-1,3-Dichloropropene	ND	ND	ug/kg	NC	
1,1-Dichloropropene	ND	ND	ug/kg	NC	
Bromoform	ND	ND	ug/kg	NC	
1,1,2,2-Tetrachloroethane	ND	ND	ug/kg	NC	
Benzene	ND	ND	ug/kg	NC	
Toluene	ND	ND	ug/kg	NC	
Ethylbenzene	ND	ND	ug/kg	NC	
Chloromethane	ND	ND	ug/kg	NC	
Bromomethane	ND	ND	ug/kg	NC	
Vinyl chloride	ND	ND	ug/kg	NC	
Chloroethane	ND	ND	ug/kg	NC	
1,1-Dichloroethene	ND	ND	ug/kg	NC	
trans-1,2-Dichloroethene	ND	ND	ug/kg	NC	
Trichloroethene	ND	ND	ug/kg	NC	
1,2-Dichlorobenzene	ND	ND	ug/kg	NC	
1,3-Dichlorobenzene	ND	ND	ug/kg	NC	
1,4-Dichlorobenzene	ND	ND	ug/kg	NC	
Methyl tert butyl ether	ND	ND	ug/kg	NC	
p/m-Xylene	ND	ND	ug/kg	NC	
o-Xylene	ND	ND	ug/kg	NC	
cis-1,2-Dichloroethene	ND	ND	ug/kg	NC	
Dibromomethane	ND	ND	ug/kg	NC	
Iodomethane	ND	ND	ug/kg	NC	
1,2,3-Trichloropropane	ND	ND	ug/kg	NC	
Styrene	ND	ND	ug/kg	NC	
Dichlorodifluoromethane	ND	ND	ug/kg	NC	
Acetone	ND	ND	ug/kg	NC	
Carbon disulfide	ND	ND	ug/kg	NC	
2-Butanone	ND	ND	ug/kg	NC	
Vinyl acetate	ND	ND	ug/kg	NC	
4-Methyl-2-pentanone	ND	ND	ug/kg	NC	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0309656

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Volatile Organics 8260 via Low 5035 for sample(s) 01,05,08,10,12 (L0309668-02, WG151976)					
2-Hexanone	ND	ND	ug/kg	NC	
Acrolein	ND	ND	ug/kg	NC	
Acrylonitrile	ND	ND	ug/kg	NC	
Bromochloromethane	ND	ND	ug/kg	NC	
2,2-Dichloropropane	ND	ND	ug/kg	NC	
1,2-Dibromoethane	ND	ND	ug/kg	NC	
1,3-Dichloropropane	ND	ND	ug/kg	NC	
1,1,1,2-Tetrachloroethane	ND	ND	ug/kg	NC	
Bromobenzene	ND	ND	ug/kg	NC	
n-Butylbenzene	ND	ND	ug/kg	NC	
sec-Butylbenzene	ND	ND	ug/kg	NC	
tert-Butylbenzene	ND	ND	ug/kg	NC	
o-Chlorotoluene	ND	ND	ug/kg	NC	
p-Chlorotoluene	ND	ND	ug/kg	NC	
1,2-Dibromo-3-chloropropane	ND	ND	ug/kg	NC	
Hexachlorobutadiene	ND	ND	ug/kg	NC	
Isopropylbenzene	ND	ND	ug/kg	NC	
p-Isopropyltoluene	ND	ND	ug/kg	NC	
Naphthalene	ND	ND	ug/kg	NC	
n-Propylbenzene	ND	ND	ug/kg	NC	
1,2,3-Trichlorobenzene	ND	ND	ug/kg	NC	
1,2,4-Trichlorobenzene	ND	ND	ug/kg	NC	
1,3,5-Trimethylbenzene	ND	ND	ug/kg	NC	
1,2,4-Trimethylbenzene	ND	ND	ug/kg	NC	
trans-1,4-Dichloro-2-butene	ND	ND	ug/kg	NC	
Surrogate(s)	Recovery				QC Criteria
1,2-Dichloroethane-d4	111.	112.	%	1	
Toluene-d8	125.	125.	%	0	
4-Bromofluorobenzene	136	136.	%	0	
Dibromofluoromethane	109.	109.	%	0	
Volatile Petroleum Hydrocarbons for sample(s) 01,03,05,07-08,10-11 (L0309639-01, WG151842)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	13.0	13.2	mg/kg	2	50
C9-C10 Aromatics	6.78	7.40	mg/kg	9	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	6.28	5.80	mg/kg	8	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0309656

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Volatile Petroleum Hydrocarbons for sample(s) 01,03,05,07-08,10-11 (L0309639-01, WG151842)					
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	92.0	95.0	%	3	70-130
2,5-Dibromotoluene-FID	91.0	90.0	%	1	70-130
Volatile Petroleum Hydrocarbons for sample(s) 09 (L0309685-02, WG152220)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9 C10 Aromatics	ND	ND	mg/kg	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	96.0	96.0	%	0	70-130
2,5-Dibromotoluene-FID	115.	119.	%	3	70-130
Volatile Petroleum Hydrocarbons for sample(s) 13-20,24 (L0309603-01, WG152128)					
C5-C8 Aliphatics	ND	ND	ug/l	NC	50
C9-C12 Aliphatics	ND	ND	ug/l	NC	50
C9-C10 Aromatics	ND	ND	ug/l	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	ug/l	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	ug/l	NC	50
Benzene	ND	ND	ug/l	NC	50
Toluene	ND	ND	ug/l	NC	50
Ethylbenzene	ND	ND	ug/l	NC	50
p/m-Xylene	ND	ND	ug/l	NC	50
o-Xylene	ND	ND	ug/l	NC	50
Methyl tert butyl ether	ND	ND	ug/l	NC	50
Naphthalene	ND	ND	ug/l	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	87.0	78.0	%	11	70-130
2,5-Dibromotoluene-FID	91.0	88.0	%	3	70-130
Volatile Petroleum Hydrocarbons for sample(s) 21-23 (L0309752-02, WG152226)					
C5-C8 Aliphatics	ND	ND	ug/l	NC	50
C9-C12 Aliphatics	ND	ND	ug/l	NC	50
C9-C10 Aromatics	ND	ND	ug/l	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	ug/l	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	ug/l	NC	50
Benzene	ND	ND	ug/l	NC	50

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0309656

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Volatile Petroleum Hydrocarbons for sample(s) 21-23 (L0309752-02, WG152226)					
Toluene	ND	ND	ug/l	NC	50
Ethylbenzene	ND	ND	ug/l	NC	50
p/m-Xylene	ND	ND	ug/l	NC	50
o-Xylene	ND	ND	ug/l	NC	50
Methyl tert butyl ether	ND	ND	ug/l	NC	50
Naphthalene	ND	ND	ug/l	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	103.	96.0	%	7	70-130
2,5-Dibromotoluene-FID	105.	98.0	%	7	70-130
Extractable Petroleum Hydrocarbons for sample(s) 01,03,05,07-10 (L0309639-01, WG151709)					
C9-C16 Aliphatics	170.	158.	mg/kg	7	50
C19-C36 Aliphatics	101.	88.5	mg/kg	13	50
C11-C22 Aromatics	149.	144.	mg/kg	3	50
C11-C22 Aromatics, Adjusted	149.	144.	mg/kg	3	50
Naphthalene	ND	ND	mg/kg	NC	50
2-Methylnaphthalene	ND	ND	mg/kg	NC	50
Acenaphthylene	ND	ND	mg/kg	NC	50
Acenaphthene	ND	ND	mg/kg	NC	50
Fluorene	ND	ND	mg/kg	NC	50
Phenanthrene	ND	ND	mg/kg	NC	50
Anthracene	ND	ND	mg/kg	NC	50
Fluoranthene	ND	ND	mg/kg	NC	50
Pyrene	ND	ND	mg/kg	NC	50
Benzo(a)anthracene	ND	ND	mg/kg	NC	50
Chrysene	ND	ND	mg/kg	NC	50
Benzo(b)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(k)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(a)pyrene	ND	ND	mg/kg	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	mg/kg	NC	50
Dibenzo(a,h)anthracene	ND	ND	mg/kg	NC	50
Benzo(ghi)perylene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	71.0	66.0	%	7	40-140
o-Terphenyl	79.0	96.0	%	19	40-140
2-Fluorobiphenyl	79.0	75.0	%	5	40-140
2-Bromonaphthalene	78.0	92.0	%	16	40-140
Extractable Petroleum Hydrocarbons for sample(s) 15,17-19 (L0309782-06, WG152328)					
C9-C18 Aliphatics	1770	1330	ug/l	28	50
C19-C36 Aliphatics	2270	1810	ug/l	23	50
C11-C22 Aromatics	1170	1280	ug/l	9	50
C11-C22 Aromatics, Adjusted	1170	1280	ug/l	9	50
Naphthalene	ND	ND	ug/l	NC	50
2-Methylnaphthalene	ND	ND	ug/l	NC	50
Acenaphthylene	ND	ND	ug/l	NC	50

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0309656

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Extractable Petroleum Hydrocarbons for sample(s) 15,17-19 (L0309782-06, WG152328)					
Acenaphthene	ND	ND	ug/l	NC	50
Fluorene	ND	ND	ug/l	NC	50
Phenanthrene	ND	ND	ug/l	NC	50
Anthracene	ND	ND	ug/l	NC	50
Fluoranthene	ND	ND	ug/l	NC	50
Pyrene	ND	ND	ug/l	NC	50
Benzo(a)anthracene	ND	ND	ug/l	NC	50
Chrysene	ND	ND	ug/l	NC	50
Benzo(b)fluoranthene	ND	ND	ug/l	NC	50
Benzo(k)fluoranthene	ND	ND	ug/l	NC	50
Benzo(a)pyrene	ND	ND	ug/l	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	ug/l	NC	50
Dibenzo(a,h)anthracene	ND	ND	ug/l	NC	50
Benzo(ghi)perylene	ND	ND	ug/l	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	81.0	62.0	%	27	40-140
o-Terphenyl	60.0	87.0	%	8	40-140
2-Fluorobiphenyl	62.0	64.0	%	3	40-140
2-Bromonaphthalene	69.0	71.0	%	3	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0309656

Parameter	% Recovery	QC Criteria
Volatile Organics by GC/MS 8260 LCS for sample(s) 20,22-23 (WG151999)		
Chlorobenzene	96	
Benzene	66	
Toluene	96	
1,1-Dichloroethene	93	
Trichloroethene	98	
Surrogate(s)		
1,2-Dichloroethane-d4	97	
Toluene-d8	97	
4-Bromofluorobenzene	96	
Dibromofluoromethane	100	
Volatile Organics by GC/MS 8260 LCS for sample(s) 25 (WG151999)		
Chlorobenzene	97	
Benzene	86	
Toluene	96	
1,1-Dichloroethene	91	
Trichloroethene	95	
Surrogate(s)		
1,2-Dichloroethane-d4	95	
Toluene-d6	92	
4-Bromofluorobenzene	95	
Dibromofluoromethane	94	
Volatile Organics by GC/MS 8260 LCS for sample(s) 16-19 (WG152003)		
Chlorobenzene	97	
Benzene	96	
Toluene	96	
1,1-Dichloroethene	67	
Trichloroethene	95	
Surrogate(s)		
1,2-Dichloroethane-d4	104	
Toluene-d8	101	
4-Bromofluorobenzene	104	
Dibromofluoromethane	102	
Volatile Organics by GC/MS 8260 LCS for sample(s) 21 (WG152238)		
Chlorobenzene	91	
Benzene	63	
Toluene	93	
1,1-Dichloroethene	85	
Trichloroethene	91	
Surrogate(s)		
1,2-Dichloroethene-d4	101	
Toluene-d8	101	

Parameter	% Recovery	QC Criteria
Volatile Organics by GC/MS 8260 LCS for sample(s) 21 (WG152238)		
4-Bromofluorobenzene	99	
Dibromofluoromethane	99	
Volatile Organics by GC/MS 8260 LCS for sample(s) 13-15 (WG152003)		
Chlorobenzene	91	
Benzene	91	
Toluene	91	
1,1-Dichloroethene	85	
Trichloroethene	93	
Surrogate(s)		
1,2-Dichloroethane-d4	105	
Toluene-d8	100	
4-Bromofluorobenzene	101	
Dibromofluoromethane	105	
Volatile Organics 8260 via Low 5035 LCS for sample(s) 01,05,08,12 (WG151976)		
Chlorobenzene	94	
Benzene	101	
Toluene	98	
1,1-Dichloroethene	87	
Trichloroethene	99	
Surrogate(s)		
1,2-Dichloroethane-d4	106	
Toluene-d8	119	
4-Bromofluorobenzene	114	
Dibromofluoromethane	105	
Volatile Organics 8260 via Low 5035 LCS for sample(s) 10 (WG151976)		
Chlorobenzene	96	
Benzene	100	
Toluene	97	
1,1-Dichloroethene	87	
Trichloroethene	99	
Surrogate(s)		
1,2-Dichloroethane-d4	97	
Toluene-d8	113	
4-Bromofluorobenzene	104	
Dibromofluoromethane	101	
Volatile Organics 8260 via High 5035 LCS for sample(s) 03,07,09 (WG151918)		
Chlorobenzene	99	
Benzene	100	
Toluene	99	
1,1-Dichloroethene	89	
Trichloroethene	105	

Parameter	% Recovery	QC Criteria
Volatile Organics 8260 via High 5035 LCS for sample(s) 03,07,09 (WG151918)		
Surrogate(s)		
1,2-Dichloroethane-d4	103	
Toluene-d8	114	
4-Bromofluorobenzene	108	
Dibromofluoromethane	103	
Volatile Petroleum Hydrocarbons LCS for sample(s) 01,03,05,07-08,10-11 (WG151842)		
Benzene	95	70-130
Toluene	93	70-130
Ethylbenzene	91	70-130
p/m-Xylene	92	70-130
o-Xylene	92	70-130
Methyl tert butyl ether	98	70-130
Naphthalene	109	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	104	70-130
2,5-Dibromotoluene-PID	109	70-130
Volatile Petroleum Hydrocarbons LCS for sample(s) 13-20,24 (WG152128)		
Benzene	101	70-130
Toluene	100	70-130
Ethylbenzene	91	70-130
p/m-Xylene	96	70-130
o-Xylene	97	70-130
Methyl tert butyl ether	104	70-130
Naphthalene	106	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	108	70-130
2,5-Dibromotoluene-FID	105	70-130
Volatile Petroleum Hydrocarbons LCS for sample(s) 09 (WG152220)		
Benzene	103	70-130
Toluene	97	70-130
Ethylbenzene	111	70-130
p/m-Xylene	103	70-130
o-Xylene	103	70-130
Methyl tert butyl ether	95	70-130
Naphthalene	109	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	108	70-130
2,5-Dibromotoluene-PID	116	70-130

Parameter	% Recovery	QC Criteria
Volatile Petroleum Hydrocarbons LCS for sample(s) 21-23 (WG152226)		
Benzene	97	70-130
Toluene	97	70-130
Ethylbenzene	89	70-130
p/m-Xylene	93	70-130
o-Xylene	96	70-130
Methyl tert butyl ether	99	70-130
Naphthalene	118	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	127	70-130
2,5-Dibromotoluene-FID	129	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 01,03,05,07-10 (WG151709)		
Naphthalene	47	40-140
Acenaphthene	50	40-140
Anthracene	75	40-140
Pyrene	82	40-140
Chrysene	81	40-140
Nonane (C9)	40	40-140
Tetradecane (C14)	56	40-140
Nonadecane (C19)	75	40-140
Eicosane (C20)	78	40-140
Octacosane (C28)	78	40-140
Surrogate(s)		
Chloro-Octadecane	55	40-140
o-Terphenyl	80	40-140
2-Fluorobiphenyl	69	40-140
2-Bromonaphthalene	71	40-140
Extractable Petroleum Hydrocarbons LCS for sample(s) 15,17-19 (WG152328)		
Naphthalene	43	40-140
Acenaphthene	51	40-140
Anthracene	77	40-140
Pyrene	86	40-140
Chrysene	92	40-140
Nonane (C9)	41	40-140
Tetradecane (C14)	62	40-140
Nonadecane (C19)	91	40-140
Eicosane (C20)	94	40-140
Octacosane (C28)	93	40-140
Surrogate(s)		
Chloro-Octadecane	72	40-140
o-Terphenyl	77	40-140
2-Fluorobiphenyl	67	40-140
2-Bromonaphthalene	70	40-140

Parameter	% Recovery	QC Criteria
Extractable Petroleum Hydrocarbons LCS for sample(s) 13-14,16,20-23 (WG152327)		
Naphthalene	50	40-140
Acenaphthene	58	40-140
Anthracene	86	40-140
Pyrene	81	40-140
Chrysene	84	40-140
Nonane (C9)	39	40-140
Tetradecane (C14)	55	40-140
Nonadecane (C19)	71	40-140
Eicosane (C20)	74	40-140
Octacosane (C28)	74	40-140
Surrogate(s)		
Chloro-Octadecane	59	40-140
o-Terphenyl	96	40-140
2-Fluorobiphenyl	75	40-140
2-Bromonaphthalene	78	40-140
Extractable Petroleum Hydrocarbons LCS for sample(s) 13-14,16,20-23 (WG152327)		
Naphthalene	51	40-140
Acenaphthene	57	40-140
Anthracene	82	40-140
Pyrene	85	40-140
Chrysene	88	40-140
Nonane (C9)	48	40-140
Tetradecane (C14)	64	40-140
Nonadecane (C19)	84	40-140
Eicosane (C20)	87	40-140
Octacosane (C28)	86	40-140
Surrogate(s)		
Chloro-Octadecane	71	40-140
o-Terphenyl	85	40-140
2-Fluorobiphenyl	71	40-140
2-Bromonaphthalene	72	40-140
Extractable Petroleum Hydrocarbons SPIKE for sample(s) 15,17-19 (L0309782-06, WG152328)		
Naphthalene	36	40-140
Acenaphthene	47	40-140
Anthracene	67	40-140
Pyrene	75	40-140
Chrysene	75	40-140
Nonane (C9)	44	40-140
Tetradecane (C14)	63	40-140
Nonadecane (C19)	77	40-140
Eicosane (C20)	78	40-140
Octacosane (C28)	79	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0309656

Continued

Parameter	% Recovery	QC Criteria
Extractable Petroleum Hydrocarbons SPIKE for sample(s) 15,17-19 (L0309782-06, WG152328)		
Surrogate(s)		
Chloro-Octadecane	65	40-140
o-Terphenyl	76	40-140
2-Fluorobiphenyl	53	40-140
2-Bromonaphthalene	54	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH MS/MSD ANALYSIS

Laboratory Job Number: L0309656

Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
Volatile Organics by GC/MS 8260 for sample(s) 20,22-23,25 (L0309655-29, WG151999)					
Chlorobenzene	101	100	1		
Benzene	83	82	1		
Toluene	102	103	1		
1,1-Dichloroethene	99	100	1		
Trichloroethene	95	94	1		
Surrogate(s)					
1,2-Dichloroethane-d4	183	170	7		
Toluene-d8	182	183	1		
4-Bromofluorobenzene	160	160	0		
Dibromofluoromethane	183	179	2		
Volatile Organics by GC/MS 8260 for sample(s) 13-19 (L0309620-02, WG152003)					
Chlorobenzene	86	86	1		
Benzene	87	92	5		
Toluene	86	88	2		
1,1-Dichloroethene	73	78	6		
Trichloroethene	81	86	6		
Surrogate(s)					
1,2-Dichloroethane-d4	109	115	5		
Toluene-d8	106	108	2		
4-Bromofluorobenzene	100	105	5		
Dibromofluoromethane	109	113	4		
Volatile Organics by GC/MS 8260 for sample(s) 21 (L0309656-21, WG152238)					
Chlorobenzene	95	94	2		
Benzene	88	87	2		
Toluene	98	98	0		
1,1-Dichloroethene	108	104	4		
Trichloroethene	104	102	2		
Surrogate(s)					
1,2-Dichloroethane-d4	116	115	1		
Toluene-d8	115	115	0		
4-Bromofluorobenzene	109	109	0		
Dibromofluoromethane	115	114	1		
Volatile Organics 8260 via High 5035 for sample(s) 03,07,09 (L0309684-04, WG151918)					
Chlorobenzene	98	96	2		
Benzene	100	101	1		
Toluene	100	99	1		
1,1-Dichloroethene	82	85	3		
Trichloroethene	102	102	0		
Surrogate(s)					
1,2-Dichloroethane-d4	99	102	3		
Toluene-d8	115	115	0		

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH MS/MSD ANALYSIS

Laboratory Job Number: L0309656

Continued

Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
Volatile Organics 8260 via High 5035 for sample(s) 03,07,09 (L0309684-04, WG151918)					
4-Bromofluorobenzene	106	106	0		
Dibromofluoromethane	101	102	1		

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0309656

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 20,22-23 (WG151999-4)							
Volatile Organics by GC/MS 8260				1 8260B		0925 10 40	WT
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
Trichlorofluoromethane	ND	ug/l	2.5				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
1,1-Dichloropropene	ND	ug/l	2.5				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Benzene	ND	ug/l	0.50				
Toluene	ND	ug/l	0.75				
Ethylbenzene	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Bromomethane	ND	ug/l	1.0				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
Methyl tert butyl ether	ND	ug/l	1.0				
p/m-Xylene	ND	ug/l	0.50				
o-Xylene	ND	ug/l	0.50				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dibromomethane	ND	ug/l	5.0				
1,4-Dichlorobutane	ND	ug/l	5.0				
Iodomethane	ND	ug/l	5.0				
1,2,3-Trichloropropane	ND	ug/l	5.0				
Styrene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
Acetone	ND	ug/l	5.0				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	5.0				
Vinyl acetate	ND	ug/l	5.0				
4-Methyl-2-pentanone	ND	ug/l	5.0				
2-Hexanone	ND	ug/l	5.0				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0309656

Continued

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 20,22-23 (WG151999-4)								
Volatile Organics by GC/MS 8260 continued				1	8260B		0929 10:40	BT
Ethyl methacrylate	ND	ug/l	5.0					
Acrolein	ND	ug/l	12.					
Acrylonitrile	ND	ug/l	5.0					
Bromochloromethane	ND	ug/l	2.5					
Tetrahydrofuran	ND	ug/l	10.					
2,2-Dichloropropane	ND	ug/l	2.5					
1,2-Dibromoethane	ND	ug/l	2.5					
1,3-Dichloropropane	ND	ug/l	2.5					
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50					
Bromobenzene	ND	ug/l	2.5					
n-Butylbenzene	ND	ug/l	0.50					
sec-Butylbenzene	ND	ug/l	0.50					
tert-Butylbenzene	ND	ug/l	2.5					
o-Chlorotoluene	ND	ug/l	2.5					
p-Chlorotoluene	ND	ug/l	2.5					
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5					
Hexachlorobutadiene	ND	ug/l	2.5					
Isopropylbenzene	ND	ug/l	0.50					
p-Isopropyltoluene	ND	ug/l	0.50					
Naphthalene	ND	ug/l	2.5					
n-Propylbenzene	ND	ug/l	0.50					
1,2,3-Trichlorobenzene	ND	ug/l	2.5					
1,2,4-Trichlorobenzene	ND	ug/l	2.5					
1,3,5-Trimethylbenzene	ND	ug/l	2.5					
1,2,4-Trimethylbenzene	ND	ug/l	2.5					
trans-1,4-Dichloro-2-butene	ND	ug/l	2.5					
Ethyl ether	ND	ug/l	2.5					
Surrogate(s)	Recovery		QC Criteria					
1,2-Dichloroethane-d4	100.	%						
Toluene-d8	97.0	%						
4-Bromofluorobenzene	97.0	%						
Dibromofluoromethane	96.0	%						
Blank Analysis for sample(s) 25 (WG151999-10)								
Volatile Organics by GC/MS 8260				1	8260B		1001 17:43	BT
Methylene chloride	ND	ug/l	5.0					
1,1-Dichloroethane	ND	ug/l	0.75					
Chloroform	ND	ug/l	0.75					
Carbon tetrachloride	ND	ug/l	0.50					
1,2-Dichloropropane	ND	ug/l	1.8					
Dibromochloromethane	ND	ug/l	0.50					
1,1,2-Trichloroethane	ND	ug/l	0.75					
Tetrachloroethene	ND	ug/l	0.50					
Chlorobenzene	ND	ug/l	0.50					
Trichlorofluoromethane	ND	ug/l	2.5					
1,2-Dichloroethane	ND	ug/l	0.50					

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0309656

Continued

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 25 (WG151999-10)								
Volatile Organics by GC/MS 8260 continued				1	8260B		1001 17:43	BT
1,1,1-Trichloroethane	ND	ug/l	0.50					
Bromodichloromethane	ND	ug/l	0.50					
trans-1,3-Dichloropropene	ND	ug/l	0.50					
cis-1,3-Dichloropropene	ND	ug/l	0.50					
1,1-Dichloropropene	ND	ug/l	2.5					
Bromoform	ND	ug/l	2.0					
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50					
Benzene	ND	ug/l	0.50					
Toluene	ND	ug/l	0.75					
Ethylbenzene	ND	ug/l	0.50					
Chloromethane	ND	ug/l	2.5					
Bromomethane	ND	ug/l	1.0					
Vinyl chloride	ND	ug/l	1.0					
Chloroethane	ND	ug/l	1.0					
1,1-Dichloroethene	ND	ug/l	0.50					
trans-1,2-Dichloroethene	ND	ug/l	0.75					
Trichloroethene	ND	ug/l	0.50					
1,2-Dichlorobenzene	ND	ug/l	2.5					
1,3-Dichlorobenzene	ND	ug/l	2.5					
1,4-Dichlorobenzene	ND	ug/l	2.5					
Methyl tert butyl ether	ND	ug/l	1.0					
p/m-Xylene	ND	ug/l	0.50					
o-Xylene	ND	ug/l	0.50					
cis-1,2-Dichloroethene	ND	ug/l	0.50					
Dibromomethane	ND	ug/l	5.0					
1,4-Dichlorobutane	ND	ug/l	5.0					
Iodomethane	ND	ug/l	5.0					
1,2,3-Trichloropropane	ND	ug/l	5.0					
Styrene	ND	ug/l	0.50					
Dichlorodifluoromethane	ND	ug/l	5.0					
Acetone	ND	ug/l	5.0					
Carbon disulfide	ND	ug/l	5.0					
2-Butanone	ND	ug/l	5.0					
Vinyl acetate	ND	ug/l	5.0					
4-Methyl-2-pentanone	ND	ug/l	5.0					
2-Hexanone	ND	ug/l	5.0					
Ethyl methacrylate	ND	ug/l	5.0					
Acrolein	ND	ug/l	12.					
Acrylonitrile	ND	ug/l	5.0					
Bromochloromethane	ND	ug/l	2.5					
Tetrahydrofuran	ND	ug/l	10.					
2,2-Dichloropropane	ND	ug/l	2.5					
1,2-Dibromoethane	ND	ug/l	2.5					
1,3-Dichloropropane	ND	ug/l	2.5					
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50					
Bromobenzene	ND	ug/l	2.5					
n-Butylbenzene	ND	ug/l	0.50					

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0309656

Continued

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 25 (WG151999-10)								
Volatile Organics by GC/MS 8260 continued				1	8260B		1001 17:43	BT
sec-Butylbenzene	ND	ug/l	0.50					
tert-Butylbenzene	ND	ug/l	2.5					
o-Chlorotoluene	ND	ug/l	2.5					
p-Chlorotoluene	ND	ug/l	2.5					
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5					
Hexachlorobutadiene	ND	ug/l	2.5					
Isopropylbenzene	ND	ug/l	0.50					
p-Isopropyltoluene	ND	ug/l	0.50					
Naphthalene	ND	ug/l	2.5					
n-Propylbenzene	ND	ug/l	0.50					
1,2,3-Trichlorobenzene	ND	ug/l	2.5					
1,2,4-Trichlorobenzene	ND	ug/l	2.5					
1,3,5-Trimethylbenzene	ND	ug/l	2.5					
1,2,4-Trimethylbenzene	ND	ug/l	2.5					
trans-1,4-Dichloro-2-butene	ND	ug/l	2.5					
Ethyl ether	ND	ug/l	2.5					
Surrogate(s)	Recovery		QC Criteria					
1,2-Dichloroethane-d4	94.0	%						
Toluene-d8	92.0	%						
4-Bromofluorobenzene	96.0	%						
Dibromofluoromethane	79.0	%						
Blank Analysis for sample(s) 13-15 (WG152003-6)								
Volatile Organics by GC/MS 8260				1	8260B		0930 09:43	BY
Methylene chloride	ND	ug/l	5.0					
1,1-Dichloroethane	ND	ug/l	0.75					
Chloroform	ND	ug/l	0.75					
Carbon tetrachloride	ND	ug/l	0.50					
1,2-Dichloropropane	ND	ug/l	1.8					
Dibromochloromethane	ND	ug/l	0.50					
1,1,2-Trichloroethane	ND	ug/l	0.75					
Tetrachloroethene	ND	ug/l	0.50					
Chlorobenzene	ND	ug/l	0.50					
Trichlorofluoromethane	ND	ug/l	2.5					
1,2-Dichloroethane	ND	ug/l	0.50					
1,1,1-Trichloroethane	ND	ug/l	0.50					
Bromodichloromethane	ND	ug/l	0.50					
trans-1,3-Dichloropropene	ND	ug/l	0.50					
cis-1,3-Dichloropropene	ND	ug/l	0.50					
1,1-Dichloropropene	ND	ug/l	2.5					
Bromoform	ND	ug/l	2.0					
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50					
Benzene	ND	ug/l	0.50					
Toluene	ND	ug/l	0.75					
Ethylbenzene	ND	ug/l	0.50					
Chloromethane	ND	ug/l	2.5					

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0309656

Continued

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 13-15 (WG152003-6)								
Volatile Organics by GC/MS 8260 continued				1	8260B		0930 09:43	BY
Bromomethane	ND	ug/l	1.0					
Vinyl chloride	ND	ug/l	1.0					
Chloroethane	ND	ug/l	1.0					
1,1-Dichloroethene	ND	ug/l	0.50					
trans-1,2-Dichloroethene	ND	ug/l	0.75					
Trichloroethene	ND	ug/l	0.50					
1,2-Dichlorobenzene	ND	ug/l	2.5					
1,3-Dichlorobenzene	ND	ug/l	2.5					
1,4-Dichlorobenzene	ND	ug/l	2.5					
Methyl tert butyl ether	ND	ug/l	1.0					
p/m-Xylene	ND	ug/l	0.50					
o-Xylene	ND	ug/l	0.50					
cis-1,2-Dichloroethene	ND	ug/l	0.50					
Dibromomethane	ND	ug/l	5.0					
1,4-Dichlorobutane	ND	ug/l	5.0					
Iodomethane	ND	ug/l	5.0					
1,2,3-Trichloropropane	ND	ug/l	5.0					
Styrene	ND	ug/l	0.50					
Dichlorodifluoromethane	ND	ug/l	5.0					
Acetone	ND	ug/l	5.0					
Carbon disulfide	ND	ug/l	5.0					
2-Butanone	ND	ug/l	5.0					
Vinyl acetate	ND	ug/l	5.0					
4-Methyl-2-pentanone	ND	ug/l	5.0					
2-Hexanone	ND	ug/l	5.0					
Ethyl methacrylate	ND	ug/l	5.0					
Acrolein	ND	ug/l	12.					
Acrylonitrile	ND	ug/l	5.0					
Bromochloromethane	ND	ug/l	2.5					
Tetrahydrofuran	ND	ug/l	10.					
2,2-Dichloropropane	ND	ug/l	2.5					
1,2-Dibromoethane	ND	ug/l	2.5					
1,3-Dichloropropane	ND	ug/l	2.5					
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50					
Bromobenzene	ND	ug/l	2.5					
n-Butylbenzene	ND	ug/l	0.50					
sec-Butylbenzene	ND	ug/l	0.50					
tert-Butylbenzene	ND	ug/l	2.5					
o-Chlorotoluene	ND	ug/l	2.5					
p-Chlorotoluene	ND	ug/l	2.5					
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5					
Hexachlorobutadiene	ND	ug/l	2.5					
Isopropylbenzene	ND	ug/l	0.50					
p-Isopropyltoluene	ND	ug/l	0.50					
Naphthalene	ND	ug/l	2.5					
n-Propylbenzene	ND	ug/l	0.50					
1,2,3-Trichlorobenzene	ND	ug/l	2.5					

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

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PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 13-15 (WG152003-6)								
Volatile Organics by GC/MS 8260 continued				1	8260B		0930 09:43	RT
1,2,4-Trichlorobenzene	ND	ug/l	2.5					
1,3,5-Trimethylbenzene	ND	ug/l	2.5					
1,2,4-Trimethylbenzene	ND	ug/l	2.5					
trans-1,4-Dichloro-2-butene	ND	ug/l	2.5					
Ethyl ether	ND	ug/l	2.5					

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	109.	%	
Toluene-d8	99.0	%	
4-Bromofluorobenzene	109.	%	
Dibromofluoromethane	106.	%	

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 16-19 (WG152003-8)								
Volatile Organics by GC/MS 8260				1	8260B		0930 17:23	RT
Methylene chloride	ND	ug/l	5.0					
1,1-Dichloroethane	ND	ug/l	0.75					
Chloroform	ND	ug/l	0.75					
Carbon tetrachloride	ND	ug/l	0.50					
1,2-Dichloropropane	ND	ug/l	1.8					
Dibromochloromethane	ND	ug/l	0.50					
1,1,2-Trichloroethane	ND	ug/l	0.75					
Tetrachloroethene	ND	ug/l	0.50					
Chlorobenzene	ND	ug/l	0.50					
Trichlorofluoromethane	ND	ug/l	2.5					
1,2-Dichloroethane	ND	ug/l	0.50					
1,1,1-Trichloroethane	ND	ug/l	0.50					
Bromodichloromethane	ND	ug/l	0.50					
trans-1,3-Dichloropropene	ND	ug/l	0.50					
cis-1,2-Dichloropropene	ND	ug/l	0.50					
1,1-Dichloropropene	ND	ug/l	2.5					
Bromoform	ND	ug/l	2.0					
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50					
Benzene	ND	ug/l	0.50					
Toluene	ND	ug/l	0.75					
Ethylbenzene	ND	ug/l	0.50					
Chloromethane	ND	ug/l	2.5					
Bromomethane	ND	ug/l	1.0					
Vinyl chloride	ND	ug/l	1.0					
Chloroethane	ND	ug/l	1.0					
1,1-Dichloroethene	ND	ug/l	0.50					
trans-1,2-Dichloroethene	ND	ug/l	0.75					
Trichloroethene	ND	ug/l	0.50					
1.2-Dichlorobenzene	ND	ug/l	2.5					
1,2-Dichlorobenzene	ND	ug/l	2.5					
1,4-Dichlorobenzene	ND	ug/l	2.5					
Methyl tert butyl ether	ND	ug/l	1.0					
p/m-Xylene	ND	ug/l	0.50					

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QUALITY ASSURANCE BATCH BLANK ANALYSIS

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PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 16-19 (WG152003-8)								
Volatile Organics by GC/MS 8260 continued				1	8260B		0930 17:23	RT
o-Xylene	ND	ug/l	0.50					
cis-1,2-Dichloroethene	ND	ug/l	0.50					
Dibromomethane	ND	ug/l	5.0					
1,4-Dichlorobutane	ND	ug/l	5.0					
Iodomethane	ND	ug/l	5.0					
1,2,3-Trichloropropane	ND	ug/l	5.0					
Styrene	ND	ug/l	0.50					
Dichlorodifluoromethane	ND	ug/l	5.0					
Acetone	ND	ug/l	5.0					
Carbon disulfide	ND	ug/l	5.0					
2-Butanone	ND	ug/l	5.0					
Vinyl acetate	ND	ug/l	5.0					
4-Methyl-2-pentanone	ND	ug/l	5.0					
2-Hexanone	ND	ug/l	5.0					
Ethyl methacrylate	ND	ug/l	5.0					
Acrolein	ND	ug/l	12.					
Acrylonitrile	ND	ug/l	5.0					
Bromochloromethane	ND	ug/l	2.5					
Tetrahydrofuran	ND	ug/l	10.					
2,2-Dichloropropane	ND	ug/l	2.5					
1,2-Dibromoethane	ND	ug/l	2.5					
1,3-Dichloropropane	ND	ug/l	2.5					
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50					
Bromobenzene	ND	ug/l	2.5					
n-Butylbenzene	ND	ug/l	0.50					
sec-Butylbenzene	ND	ug/l	0.50					
tert-Butylbenzene	ND	ug/l	2.5					
o-Chlorotoluene	ND	ug/l	2.5					
p-Chlorotoluene	ND	ug/l	2.5					
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5					
Hexachlorobutadiene	ND	ug/l	2.5					
Isopropylbenzene	ND	ug/l	0.50					
p-Isopropyltoluene	ND	ug/l	0.50					
Naphthalene	ND	ug/l	2.5					
n-Propylbenzene	ND	ug/l	0.50					
1,2,3-Trichlorobenzene	ND	ug/l	2.5					
1,2,4-Trichlorobenzene	ND	ug/l	2.5					
1,3,5-Trimethylbenzene	ND	ug/l	2.5					
1,2,4-Trimethylbenzene	ND	ug/l	2.5					
trans-1,4-Dichloro-2-butene	ND	ug/l	2.5					
Ethyl ether	ND	ug/l	2.5					

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	107.	%	
Toluene-d8	100.	%	
4-Bromofluorobenzene	112.	%	
Dibromofluoromethane	104.	%	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

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PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 21 (WG152238-8)								
Volatile Organics by GC/MS 8260				1	8260B		1002 10:51	RT
Methylene chloride	ND	ug/l	5.0					
1,1-Dichloroethane	ND	ug/l	0.75					
Chloroform	ND	ug/l	0.75					
Carbon tetrachloride	ND	ug/l	0.50					
1,2-Dichloropropane	ND	ug/l	1.8					
Dibromochloromethane	ND	ug/l	0.50					
1,1,2-Trichloroethane	ND	ug/l	0.75					
Tetrachloroethene	ND	ug/l	0.50					
Chlorobenzene	ND	ug/l	0.50					
Trichlorofluoromethane	ND	ug/l	2.5					
1,2-Dichloroethane	ND	ug/l	0.50					
1,1,1-Trichloroethane	ND	ug/l	0.50					
Bromodichloromethane	ND	ug/l	0.50					
trans-1,3-Dichloropropene	ND	ug/l	0.50					
cis-1,3-Dichloropropene	ND	ug/l	0.50					
1,1-Dichloropropene	ND	ug/l	2.5					
Bromoform	ND	ug/l	2.0					
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50					
Benzene	ND	ug/l	0.50					
Toluene	ND	ug/l	0.75					
Ethylbenzene	ND	ug/l	0.50					
Chloromethane	ND	ug/l	2.5					
Bromomethane	ND	ug/l	1.0					
Vinyl chloride	ND	ug/l	1.0					
Chloroethane	ND	ug/l	1.0					
1,1-Dichloroethene	ND	ug/l	0.50					
trans-1,2-Dichloroethene	ND	ug/l	0.75					
Trichloroethane	ND	ug/l	0.50					
1,2-Dichlorobenzene	ND	ug/l	2.5					
1,2-Dichlorobenzene	ND	ug/l	2.5					
1,4-Dichlorobenzene	ND	ug/l	2.5					
Methyl tert butyl ether	ND	ug/l	1.0					
p/m-Xylene	ND	ug/l	0.50					
o-Xylene	ND	ug/l	0.50					
cis-1,2-Dichloroethene	ND	ug/l	0.50					
Dibromomethane	ND	ug/l	5.0					
1,4-Dichlorobutane	ND	ug/l	5.0					
Iodomethane	ND	ug/l	5.0					
1,2,2-Trichloropropane	ND	ug/l	5.0					
Styrene	ND	ug/l	0.50					
Dichlorodifluoromethane	ND	ug/l	5.0					
Acetone	ND	ug/l	5.0					
Carbon disulfide	ND	ug/l	5.0					
2-Butanone	ND	ug/l	5.0					
Vinyl acetate	ND	ug/l	5.0					
4-Methyl-2-pentanone	ND	ug/l	5.0					
2-Hexanone	ND	ug/l	5.0					

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

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PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 21 (WG152228-8)								
Volatile Organics by GC/MS 8260 continued				1	8260B		1002 10:51	RT
Ethyl methacrylate	ND	ug/l	5.0					
Acrolein	ND	ug/l	12.					
Acrylonitrile	ND	ug/l	5.0					
Bromochloromethane	ND	ug/l	2.5					
Tetrahydrofuran	ND	ug/l	10					
2,2-Dichloropropane	ND	ug/l	2.5					
1,2-Dibromoethane	ND	ug/l	2.5					
1,3-Dichloropropane	ND	ug/l	2.5					
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50					
Bromobenzene	ND	ug/l	2.5					
n-Butylbenzene	ND	ug/l	0.50					
sec-Butylbenzene	ND	ug/l	0.50					
tert-Butylbenzene	ND	ug/l	2.5					
o-Chlorotoluene	ND	ug/l	2.5					
p-Chlorotoluene	ND	ug/l	2.5					
1,2-Dibromo-2-chloropropane	ND	ug/l	2.5					
Hexachlorobutadiene	ND	ug/l	2.5					
Isopropylbenzene	ND	ug/l	0.50					
p-Isopropyltoluene	ND	ug/l	0.50					
Naphthalene	ND	ug/l	2.5					
n-Propylbenzene	ND	ug/l	0.50					
1,2,2-Trichlorobenzene	ND	ug/l	2.5					
1,2,4-Trichlorobenzene	ND	ug/l	2.5					
1,3,5-Trimethylbenzene	ND	ug/l	2.5					
1.2.4-Trimethylbenzene	ND	ug/l	2.5					
trans-1,4-Dichloro-2-butene	ND	ug/l	2.5					
Ethyl ether	ND	ug/l	2.5					

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	102.	%	
Toluene-d8	100.	%	
4-Bromofluorobenzene	102.	%	
Dibromofluoromethane	100.	%	

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01,05,08,12 (WG151976-5)								
Volatile Organics 8260 via Low 5035				1	8260B		0929 19:04	RT
Methylene chloride	ND	ug/kg	10.					
1,1-Dichloroethane	ND	ug/kg	1.5					
Chloroform	ND	ug/kg	1.5					
Carbon tetrachloride	ND	ug/kg	1.0					
1,2-Dichloropropane	ND	ug/kg	3.5					
Dibromochloromethane	ND	ug/kg	1.0					
1,1,2-Trichloroethane	ND	ug/kg	1.5					
Tetrachloroethene	ND	ug/kg	1.0					
Chlorobenzene	ND	ug/kg	1.0					
Trichlorofluoromethane	ND	ug/kg	5.0					
1,2-Dichloroethane	ND	ug/kg	1.0					

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QUALITY ASSURANCE BATCH BLANK ANALYSIS

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PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Blank Analysis for sample(s) 01,05,08,12 (WG151976-5)						
Volatile Organics 8260 via Low 5035 continued				1 8260B	0929 19:04	BT
1,1,1-Trichloroethane	ND	ug/kg	1.0			
Bromodichloromethane	ND	ug/kg	1.0			
trans-1,3-Dichloropropene	ND	ug/kg	1.0			
cis-1,3-Dichloropropene	ND	ug/kg	1.0			
1,1-Dichloropropene	ND	ug/kg	5.0			
Bromoform	ND	ug/kg	4.0			
1,1,2,2-Tetrachloroethane	ND	ug/kg	1.0			
Benzene	ND	ug/kg	1.0			
Toluene	ND	ug/kg	1.5			
Ethylbenzene	ND	ug/kg	1.0			
Chloromethane	ND	ug/kg	5.0			
Bromomethane	ND	ug/kg	2.0			
Vinyl chloride	ND	ug/kg	2.0			
Chloroethane	ND	ug/kg	2.0			
1,1-Dichloroethene	ND	ug/kg	1.0			
trans-1,2-Dichloroethene	ND	ug/kg	1.5			
Trichloroethene	ND	ug/kg	1.0			
1,2-Dichlorobenzene	ND	ug/kg	5.0			
1,3-Dichlorobenzene	ND	ug/kg	5.0			
1,4-Dichlorobenzene	ND	ug/kg	5.0			
Methyl tert butyl ether	ND	ug/kg	2.0			
p/m-Xylene	ND	ug/kg	1.0			
o-Xylene	ND	ug/kg	1.0			
cis-1,2-Dichloroethene	ND	ug/kg	1.0			
Dibromomethane	ND	ug/kg	10.			
1,4-Dichlorobutane	ND	ug/kg	10.			
Iodomethane	ND	ug/kg	10.			
1,2,3-Trichloropropane	ND	ug/kg	10.			
Styrene	ND	ug/kg	1.0			
Dichlorodifluoromethane	ND	ug/kg	10.			
Acetone	ND	ug/kg	10.			
Carbon disulfide	ND	ug/kg	10.			
2-Butanone	ND	ug/kg	10.			
Vinyl acetate	ND	ug/kg	10.			
4-Methyl-2-pentanone	ND	ug/kg	10.			
2-Hexanone	ND	ug/kg	10.			
Ethyl methacrylate	ND	ug/kg	10.			
Acrolein	ND	ug/kg	25.			
Acrylonitrile	ND	ug/kg	10.			
Bromochloromethane	ND	ug/kg	5.0			
Tetrahydrofuran	ND	ug/kg	20.			
2,2-Dichloropropane	ND	ug/kg	5.0			
1,2-Dibromoethane	ND	ug/kg	5.0			
1,3-Dichloropropane	ND	ug/kg	5.0			
1,1,1,2-Tetrachloroethane	ND	ug/kg	1.0			
Bromobenzene	ND	ug/kg	5.0			
n-Butylbenzene	ND	ug/kg	1.0			

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QUALITY ASSURANCE BATCH BLANK ANALYSIS

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PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Blank Analysis for sample(s) 01,05,08,12 (WG151976-5)						
Volatile Organics 8260 via Low 5035 continued				1 8260B	0929 19:04	BT
sec-Butylbenzene	ND	ug/kg	1.0			
tert-Butylbenzene	ND	ug/kg	5.0			
o-Chlorotoluene	ND	ug/kg	5.0			
p-Chlorotoluene	ND	ug/kg	5.0			
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0			
Hexachlorobutadiene	ND	ug/kg	5.0			
Isopropylbenzene	ND	ug/kg	1.0			
p-Isopropyltoluene	ND	ug/kg	1.0			
Naphthalene	ND	ug/kg	5.0			
n-Propylbenzene	ND	ug/kg	1.0			
1,2,3-Trichlorobenzene	ND	ug/kg	5.0			
1,2,4-Trichlorobenzene	ND	ug/kg	5.0			
1,3,5-Trimethylbenzene	ND	ug/kg	5.0			
1,2,4-Trimethylbenzene	ND	ug/kg	5.0			
trans-1,4-Dichloro-2-butene	ND	ug/kg	5.0			
Ethyl ether	ND	ug/kg	5.0			
Surrogate(s)	Recovery		QC Criteria			
1,2-Dichloroethane-d4	112.	%				
Toluene-d8	116.	%				
4-Bromofluorobenzene	113.	%				
Dibromofluoromethane	104.	%				
Blank Analysis for sample(s) 10 (WG151976-7)						
Volatile Organics 8260 via Low 5035				1 8260B	1001 16:34	BT
Methylene chloride	ND	ug/kg	10.			
1,1-Dichloroethane	ND	ug/kg	1.5			
Chloroform	ND	ug/kg	1.5			
Carbon tetrachloride	ND	ug/kg	1.0			
1,2-Dichloropropane	ND	ug/kg	3.5			
Dibromochloromethane	ND	ug/kg	1.0			
1,1,2-Trichloroethane	ND	ug/kg	1.5			
Tetrachloroethene	ND	ug/kg	1.0			
Chlorobenzene	ND	ug/kg	1.0			
Trichlorofluoromethane	ND	ug/kg	5.0			
1,2-Dichloroethane	ND	ug/kg	1.0			
1,1,1-Trichloroethane	ND	ug/kg	1.0			
Bromodichloromethane	ND	ug/kg	1.0			
trans-1,3-Dichloropropene	ND	ug/kg	1.0			
cis-1,3-Dichloropropene	ND	ug/kg	1.0			
1,1-Dichloropropene	ND	ug/kg	5.0			
Bromoform	ND	ug/kg	4.0			
1,1,2,2-Tetrachloroethane	ND	ug/kg	1.0			
Benzene	ND	ug/kg	1.0			
Toluene	ND	ug/kg	1.5			
Ethylbenzene	ND	ug/kg	1.0			
Chloromethane	ND	ug/kg	5.0			

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PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Blank Analysis for sample(s) 10 (WG151976-7)						
Volatile Organics 8260 via Low 5035 continued				1 8260B	1001 16:34	BT
Bromomethane	ND	ug/kg	2.0			
Vinyl chloride	ND	ug/kg	2.0			
Chloroethane	ND	ug/kg	2.0			
1,1-Dichloroethene	ND	ug/kg	1.0			
trans-1,2-Dichloroethene	ND	ug/kg	1.5			
Trichloroethene	ND	ug/kg	1.0			
1,2-Dichlorobenzene	ND	ug/kg	5.0			
1,3-Dichlorobenzene	ND	ug/kg	5.0			
1,4-Dichlorobenzene	ND	ug/kg	5.0			
Methyl tert butyl ether	ND	ug/kg	2.0			
p/m-Xylene	ND	ug/kg	1.0			
o-Xylene	ND	ug/kg	1.0			
cis-1,2-Dichloroethene	ND	ug/kg	1.0			
Dibromomethane	ND	ug/kg	10.			
1,4-Dichlorobutane	ND	ug/kg	10.			
Iodomethane	ND	ug/kg	10.			
1,2,3-Trichloropropane	ND	ug/kg	10.			
Styrene	ND	ug/kg	1.0			
Dichlorodifluoromethane	ND	ug/kg	10.			
Acetone	ND	ug/kg	10.			
Carbon disulfide	ND	ug/kg	10.			
2-Butanone	ND	ug/kg	10.			
Vinyl acetate	ND	ug/kg	10.			
4-Methyl-2-pentanone	ND	ug/kg	10.			
2-Hexanone	ND	ug/kg	10.			
Ethyl methacrylate	ND	ug/kg	10.			
Acrolein	ND	ug/kg	25.			
Acrylonitrile	ND	ug/kg	10.			
Bromochloromethane	ND	ug/kg	5.0			
Tetrahydrofuran	ND	ug/kg	20.			
2,2-Dichloropropane	ND	ug/kg	5.0			
1,2-Dibromoethane	ND	ug/kg	5.0			
1,3-Dichloropropane	ND	ug/kg	5.0			
1,1,1,2-Tetrachloroethane	ND	ug/kg	1.0			
Bromobenzene	ND	ug/kg	5.0			
n-Butylbenzene	ND	ug/kg	1.0			
sec-Butylbenzene	ND	ug/kg	1.0			
tert-Butylbenzene	ND	ug/kg	5.0			
o-Chlorotoluene	ND	ug/kg	5.0			
p-Chlorotoluene	ND	ug/kg	5.0			
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0			
Hexachlorobutadiene	ND	ug/kg	5.0			
Isopropylbenzene	ND	ug/kg	1.0			
p-Isopropyltoluene	ND	ug/kg	1.0			
Naphthalene	ND	ug/kg	5.0			
n-Propylbenzene	ND	ug/kg	1.0			
1,2,3-Trichlorobenzene	ND	ug/kg	5.0			

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Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Blank Analysis for sample(s) 10 (WG151976-7)						
Volatile Organics 8260 via Low 5035 continued				1 8260B	1001 16:34	BT
1,2,4-Trichlorobenzene	ND	ug/kg	5.0			
1,3,5-Trimethylbenzene	ND	ug/kg	5.0			
1,2,4-Trimethylbenzene	ND	ug/kg	5.0			
trans-1,4-Dichloro-2-butene	ND	ug/kg	5.0			
Ethyl ether	ND	ug/kg	5.0			
Surrogate(s)	Recovery		QC Criteria			
1,2-Dichloroethane-d4	102.	%				
Toluene-d8	114.	%				
4-Bromofluorobenzene	102.	%				
Dibromofluoromethane	98.0	%				
Blank Analysis for sample(s) 03,07,09 (WG151918-8)						
Volatile Organics 8260 via High 5035				1 8260B	0930 17:02	BT
Methylene chloride	ND	ug/kg	500			
1,1-Dichloroethane	ND	ug/kg	75.			
Chloroform	ND	ug/kg	75.			
Carbon tetrachloride	ND	ug/kg	50.			
1,2-Dichloropropane	ND	ug/kg	180			
Dibromochloromethane	ND	ug/kg	50.			
1,1,2-Trichloroethane	ND	ug/kg	75.			
Tetrachloroethene	ND	ug/kg	50.			
Chlorobenzene	ND	ug/kg	50.			
Trichlorofluoromethane	ND	ug/kg	250			
1,2-Dichloroethane	ND	ug/kg	50.			
1,1,1-Trichloroethane	ND	ug/kg	50.			
Bromodichloromethane	ND	ug/kg	50.			
trans-1,3-Dichloropropene	ND	ug/kg	50.			
cis-1,3-Dichloropropene	ND	ug/kg	50.			
1,1-Dichloropropene	ND	ug/kg	250			
Bromoform	ND	ug/kg	200			
1,1,2,2-Tetrachloroethane	ND	ug/kg	50.			
Benzene	ND	ug/kg	50.			
Toluene	ND	ug/kg	75.			
Ethylbenzene	ND	ug/kg	50.			
Chloromethane	ND	ug/kg	250			
Bromomethane	ND	ug/kg	100			
Vinyl chloride	ND	ug/kg	100			
Chloroethane	ND	ug/kg	100			
1,1-Dichloroethene	ND	ug/kg	50.			
trans-1,2-Dichloroethene	ND	ug/kg	75.			
Trichloroethene	ND	ug/kg	50.			
1,2-Dichlorobenzene	ND	ug/kg	250			
1,3-Dichlorobenzene	ND	ug/kg	250			
1,4-Dichlorobenzene	ND	ug/kg	250			
Methyl tert butyl ether	ND	ug/kg	100			
p/m-Xylene	ND	ug/kg	50.			

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0309656
Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 03,07,09 (WG151918-8)							
Volatile Organics 8260 via High 5035 continued				1 8260B		0930 17:02	BT
o-Xylene	ND	ug/kg	50.				
cis-1,2-Dichloroethene	ND	ug/kg	50.				
Dibromomethane	ND	ug/kg	500				
1,4-Dichlorobutane	ND	ug/kg	500				
Iodomethane	ND	ug/kg	500				
1,2,3-Trichloropropane	ND	ug/kg	500				
Styrene	ND	ug/kg	50.				
Dichlorodifluoromethane	ND	ug/kg	500				
Acetone	ND	ug/kg	500				
Carbon disulfide	ND	ug/kg	500				
2-Butanone	ND	ug/kg	500				
Vinyl acetate	ND	ug/kg	500				
4-Methyl-2-pentanone	ND	ug/kg	500				
2-Hexanone	ND	ug/kg	500				
Ethyl methacrylate	ND	ug/kg	500				
Acrolein	ND	ug/kg	1200				
Acrylonitrile	ND	ug/kg	500				
Bromochloromethane	ND	ug/kg	250				
Tetrahydrofuran	ND	ug/kg	1000				
2,2-Dichloropropane	ND	ug/kg	250				
1,2-Dibromoethane	ND	ug/kg	250				
1,3-Dichloropropane	ND	ug/kg	250				
1,1,1,2-Tetrachloroethane	ND	ug/kg	50.				
Bromobenzene	ND	ug/kg	250				
n-Butylbenzene	ND	ug/kg	50.				
sec-Butylbenzene	ND	ug/kg	50.				
tert-Butylbenzene	ND	ug/kg	250				
o-Chlorotoluene	ND	ug/kg	250				
p-Chlorotoluene	ND	ug/kg	250				
1,2-Dibromo-3-chloropropane	ND	ug/kg	250				
Hexachlorobutadiene	ND	ug/kg	250				
Isopropylbenzene	ND	ug/kg	50.				
p-Isopropyltoluene	ND	ug/kg	50.				
Naphthalene	ND	ug/kg	250				
n-Propylbenzene	ND	ug/kg	50.				
1,2,3-Trichlorobenzene	ND	ug/kg	250				
1,2,4-Trichlorobenzene	ND	ug/kg	250				
1,3,5-Trimethylbenzene	ND	ug/kg	250				
1,2,4-Trimethylbenzene	ND	ug/kg	250				
trans-1,4-Dichloro-2-butene	ND	ug/kg	250				
Ethyl ether	ND	ug/kg	250				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	98.0	%					
Toluene-d8	116.	%					
4-Bromofluorobenzene	106.	%					
Dibromofluoromethane	92.0	%					

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0309656
Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01,03,05,07-08,10-11 (WG151842-4)							
Volatile Petroleum Hydrocarbons				47 98-1		1001 13:13	MM
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	117.	%	70-130				
2,5-Dibromotoluene-FID	115.	%	70-130				
Blank Analysis for sample(s) 13-20,24 (WG152128-4)							
Volatile Petroleum Hydrocarbons				47 98 1		1001 09:02	MM
C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0				
C9-C12 Aliphatics, Unadjusted	ND	ug/l	40.0				
C9-C10 Aromatics	ND	ug/l	40.0				
C5-C8 Aliphatics, Adjusted	ND	ug/l	40.0				
C9-C12 Aliphatics, Adjusted	ND	ug/l	40.0				
Benzene	ND	ug/l	2.00				
Toluene	ND	ug/l	2.00				
Ethylbenzene	ND	ug/l	2 00				
p/m-Xylene	ND	ug/l	2.00				
o-Xylene	ND	ug/l	2.00				
Methyl tert butyl ether	ND	ug/l	4.00				
Naphthalene	ND	ug/l	20.0				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	99.0	%	70-130				
2,5-Dibromotoluene-FID	103.	%	70-130				
Blank Analysis for sample(s) 09 (WG152220-4)							
Volatile Petroleum Hydrocarbons				47 98 1		1002 09:51	MM
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0309656
Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 09 (WG152220-4)							
Volatile Petroleum Hydrocarbons continued				47 98 1		1002 09:51	MM
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	91.0	%	70-130				
2,5-Dibromotoluene-FID	108.	%	70-130				
Blank Analysis for sample(s) 21-22 (WG152226-3)							
Volatile Petroleum Hydrocarbons				47 98-1		1003 09:02	MM
C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0				
C9-C12 Aliphatics, Unadjusted	ND	ug/l	40.0				
C9-C10 Aromatics	ND	ug/l	40.0				
C5-C8 Aliphatics, Adjusted	ND	ug/l	40.0				
C9-C12 Aliphatics, Adjusted	ND	ug/l	40.0				
Benzene	ND	ug/l	2.00				
Toluene	ND	ug/l	2.00				
Ethylbenzene	ND	ug/l	2.00				
p/m Xylene	ND	ug/l	2 00				
o-Xylene	ND	ug/l	2 00				
Methyl tert butyl ether	ND	ug/l	4 00				
Naphthalene	ND	ug/l	20.0				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	99 0	%	70-130				
2,5-Dibromotoluene-FID	103.	%	70-130				
Blank Analysis for sample(s) 23 (WG152226-4)							
Volatile Petroleum Hydrocarbons				47 98 1		1003 09:51	MM
C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0				
C9-C12 Aliphatics, Unadjusted	ND	ug/l	40.0				
C9-C10 Aromatics	ND	ug/l	40.0				
C5-C8 Aliphatics, Adjusted	ND	ug/l	40.0				
C9-C12 Aliphatics, Adjusted	ND	ug/l	40.0				
Benzene	ND	ug/l	2.00				
Toluene	ND	ug/l	2.00				
Ethylbenzene	ND	ug/l	2.00				
p/m-Xylene	ND	ug/l	2.00				
o-Xylene	ND	ug/l	2.00				
Methyl tert butyl ether	ND	ug/l	4.00				
Naphthalene	ND	ug/l	20.0				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	97.0	%	70-130				
2,5-Dibromotoluene-FID	100.	%	70 130				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0309656
Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01,03,05,07-10 (WG151709-1)							
Extractable Petroleum Hydrocarbons				40 98 1	0926 10:45	0930 01:45	BW
C9-C18 Aliphatics	ND	mg/kg	10 0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0 500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	58.0	%	40-140				
o-Terphenyl	65.0	%	40-140				
2 Fluorobiphenyl	68.0	%	40 140				
2-Bromonaphthalene	71.0	%	40-140				
Blank Analysis for sample(s) 15,17-19 (WG152320-1)							
Extractable Petroleum Hydrocarbons				40 98 1	1003 14:15	1003 15:34	AJ
C9-C18 Aliphatics	ND	ug/l	100.				
C19-C36 Aliphatics	ND	ug/l	100				
C11-C22 Aromatics, Unadjusted	ND	ug/l	100.				
C11-C22 Aromatics, Adjusted	ND	ug/l	100				
Naphthalene	ND	ug/l	20.0				
2-Methylnaphthalene	ND	ug/l	20.0				
Acenaphthylene	ND	ug/l	20.0				
Acenaphthene	ND	ug/l	20.0				
Fluorene	ND	ug/l	20.0				
Phenanthrene	ND	ug/l	20.0				
Anthracene	ND	ug/l	20.0				
Fluoranthene	ND	ug/l	20.0				
Pyrene	ND	ug/l	20.0				
Benzo(a)anthracene	ND	ug/l	20.0				
Chrysene	ND	ug/l	20.0				
Benzo(b)fluoranthene	ND	ug/l	20 0				
Benzo(k)fluoranthene	ND	ug/l	20 0				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0309656

Continued

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 15,17-19 (WG152328-1)								
Extractable Petroleum Hydrocarbons continued				46	98-1	1001 14:15	1002 15:14	BJ
Benzo(a)pyrene	ND	ug/l	20.0					
Indeno(1,2,3-cd)Pyrene	ND	ug/l	20.0					
Dibenzo(a,h)anthracene	ND	ug/l	20.0					
Benzo(g,h,i)perylene	ND	ug/l	20.0					
Surrogate(s)	Recovery		QC Criteria					
Chloro-Octadecane	55.0	%	40-140					
o-Terphenyl	63.0	%	40-140					
2-Fluorobiphenyl	69.0	%	40-140					
2-Bromonaphthalene	74.0	%	40-140					
Blank Analysis for sample(s) 13-14,16,20-23 (WG152327-1)								
Extractable Petroleum Hydrocarbons				46	98-1	1001 16:40	1002 17:47	BJ
C9-C18 Aliphatics	ND	ug/l	100.					
C19-C36 Aliphatics	ND	ug/l	100.					
C11-C22 Aromatics, Unadjusted	ND	ug/l	100.					
C11-C22 Aromatics, Adjusted	ND	ug/l	100.					
Naphthalene	ND	ug/l	20.0					
2-Methylnaphthalene	ND	ug/l	20.0					
Acenaphthylene	ND	ug/l	20.0					
Acenaphthene	ND	ug/l	20.0					
Fluorene	ND	ug/l	20.0					
Phenanthrene	ND	ug/l	20.0					
Anthracene	ND	ug/l	20.0					
Fluoranthene	ND	ug/l	20.0					
Pyrene	ND	ug/l	20.0					
Benzo(a)anthracene	ND	ug/l	20.0					
Chrysene	ND	ug/l	20.0					
Benzo(b)fluoranthene	ND	ug/l	20.0					
Benzo(k)fluoranthene	ND	ug/l	20.0					
Benzo(a)pyrene	ND	ug/l	20.0					
Indeno(1,2,3-cd)Pyrene	ND	ug/l	20.0					
Dibenzo(a,h)anthracene	ND	ug/l	20.0					
Benzo(g,h,i)perylene	ND	ug/l	20.0					
Surrogate(s)	Recovery		QC Criteria					
Chloro-Octadecane	58.0	%	40-140					
o-Terphenyl	76.0	%	40-140					
2-Fluorobiphenyl	81.0	%	40-140					
2-Bromonaphthalene	79.0	%	40-140					

ALPHA ANALYTICAL LABORATORIES
ADDENDUM I

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCP. 18th Edition. 1992.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

GLOSSARY OF TERMS AND SYMBOLS

REF	Reference number in which test method may be found.
METHOD	Method number by which analysis was performed.
ID	Initials of the analyst.
ND	Not detected in comparison to the reported detection limit.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

LIMITATION OF LIABILITIES

Alpha Analytical, Inc. performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical, Inc., shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical, Inc. be held liable for any incidental consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical, Inc.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding times and splitting of samples in the field.

ALPHA
ANALYTICAL

ANALYTICAL REPORT

Lab Number:	L0907055
Client:	Sanborn, Head & Associates, Inc. 1 Technology Park Drive Westford, MA 01886
ATTN	Duncan Wood
Project Name:	515 SOMERVILLE AVENUE
Project Number:	2315.03
Report Date:	06/10/09

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L0907055-01	SH-101	SOMERVILLE, MA	06/02/09 08:59

Project Name: 515 SOMERVILLE AVENUE
Project Number: 2315 03
Lab Number: L0907055
Report Date: 06/10/09

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A, B, C & D is required for "Presumptive Certainty" status		
A	Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B	Were all QA/QC procedures required for the specified analytical methods(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriete performance standards or guidelines?	YES
C	Does the enalytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance end Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D	VPH and EPH methods only: Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	YES
A response to questions E and F is required for "Presumptive Certainty" status		
E	Were all QC performance standards and recommendations for the specified method(s) achieved?	YES
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?	NO

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name: 515 SOMERVILLE AVENUE
Project Number: 2315 03
Lab Number: L0907055
Report Date: 06/10/09

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters The data presented in this report is organized by parameter (i e VOC, SVOC, etc.). Sample specific Quality Control data (i e Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively When multiple Batch Quality Control elements are reported (e g more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody

For additional information, please contact Client Services at 800-624-9220.

MCP Related Narratives

Sample Receipt

The sample was received without a container for Total Solids analysis. Therefore, the result reported for Total Solids was provided by the client.

VPH

L0907055-01 fell short of the recommended 1.1 methanol:soil ratio, due to insufficient soil in the sample vial.

In reference to question F:

All samples were analyzed for a subset of MCP compounds per the Chain of Custody

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any end all pages of this report

Authorized Signature: Elizabeth A Simmons

Title: Technical Director/Representative

Date: 06/10/09

ORGANICS

PETROLEUM HYDROCARBONS

Project Name: 515 SOMERVILLE AVENUE
Lab Number: L0907055
Project Number: 2315.03
Report Date: 06/10/09

SAMPLE RESULTS

Lab ID:	L0907055-01	Date Collected:	06/02/09 08:59
Client ID:	SH-101	Date Received:	06/02/09
Sample Location:	SOMERVILLE, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	59,VPH-04-1.1		
Analytical Date.	06/03/09 23:58		
Analyst:	RC		
Percent Solids:	93%		

Quality Control Information

Condition of sample received	Satisfactory
Sample Temperature upon receipt.	Received on Ice
Were samples received in methanol?	Yes (Covenng the Soil)
Methanol ratio	1 9 1

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Volatile Petroleum Hydrocarbons - Westborough Lab					
C5-C8 Aliphatics, Unadjusted	ND		mg/kg	5.56	1
C9-C12 Aliphatics, Unadjusted	ND		mg/kg	5.56	1
C9-C10 Aromatics	ND		mg/kg	5 56	1
C5-C8 Aliphatics, Adjusted	ND		mg/kg	5.56	1
C9-C12 Aliphatics, Adjusted	ND		mg/kg	5 56	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	77		70-130
2,5-Dibromotoluene-FID	77		70-130

Project Name: 515 SOMERVILLE AVENUE
Lab Number: L0907055
Project Number: 2315.03
Report Date: 06/10/09

Method Blank Analysis
Batch Quality Control

Analytical Method:	59,VPH-04-1.1
Analytical Date:	06/03/09 13:07
Analyst:	RC

Parameter	Result	Qualifier	Units	RDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 01 Batch: WG365015-3				
C5-C8 Aliphatics, Unadjusted	ND		mg/kg	2 67
C9-C12 Aliphatics, Unadjusted	ND		mg/kg	2.67
C9-C10 Aromatics	ND		mg/kg	2.67
C5-C8 Aliphatics, Adjusted	ND		mg/kg	2.67
C9-C12 Aliphatics, Adjusted	ND		mg/kg	2 67

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	97		70-130
2,5-Dibromotoluene-FID	95		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 515 SOMERVILLE AVENUE
Lab Number: L0907055
Project Number: 2315.03
Report Date: 06/10/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limita
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG365015-1 WG365015-2					
C5-C8 Aliphatics	90	90	70-130	0	25
C9-C12 Aliphatics	93	93	70-130	0	25
C9-C10 Aromatics	98	95	70-130	1	25
Benzene	93	92	70-130	1	25
Toluene	94	93	70-130	1	25
Ethylbenzene	95	94	70-130	1	25
p/m-Xylene	96	95	70-130	1	25
o-Xylene	96	93	70-130	1	25
Methyl tert butyl ether	92	92	70-130	1	25
Naphthalene	101	101	70-130	0	25
1,2,4-Trimethylbenzene	98	95	70-130	1	25
Pentane	74	78	70-130	6	25
2-Methylpentane	92	89	70-130	3	25
2,2,4-Trimethylpentane	101	100	70-130	1	25
n-Nonane	108	107	30-130	1	25
n-Decane	108	108	70-130	0	25
n-Butylcyclohexane	105	105	70-130	0	25

Lab Control Sample Analysis
Batch Quality Control

Project Name: 515 SOMERVILLE AVENUE
Lab Number: L0907055
Project Number: 2315.03
Report Date: 06/10/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limita
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG365015-1 WG365015-2					

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	98		98		70-130
2,5-Dibromotoluene-FID	98		98		70-130

INORGANICS
&
MISCELLANEOUS

Project Name:	515 SOMERVILLE AVENUE	**Lab Number:**	L0907055
Project Number:	2315.03	**Report Date:**	06/10/09

SAMPLE RESULTS

Lab ID:	L0907055-01	Date Collected:	06/02/09 08 59
Client ID	SH-101	Date Received	06/02/09
Sample Location.	SOMERVILLE, MA	Field Prep:	Not Specified
Matrix	Soil		

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab									
Solids, Total	93		%	0 10	1	.	06/10/09 14 51	30,2540G	SD

Project Name:	515 SOMERVILLE AVENUE	**Lab Number:**	L0907055
Project Number:	2315.03	**Report Date:**	06/10/09

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0907055-01A	Vial MeOH preserved	A	N/A	5	Y	Absent	VPH-04(28)

*Hold days indicated by values in parentheses

Project Name:	515 SOMERVILLE AVENUE	**Lab Number:**	L0907055
Project Number:	2315.03	**Report Date:**	06/10/09

GLOSSARY

Acronyms

EPA	Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	Matrix Spike Sample Duplicate: Refer to MS.
NA	Not Applicable
NC	- Not Calculated. Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit
ND	- Not detected at the reported detection limit for the sample.
NI	Not Ignitable.
RDL	- Reported Detection Limit. The value at which an instrument can accurately measure an analyte at a specific concentration. The RDL includes any adjustments from dilutions, concentrations or moisture content, where applicable
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD) Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values, although the RPD value will be provided in the report.

Terms

Analytical Method Both the document from which the method originates and the analytical reference method. (Example EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

*	The batch duplicate RPD exceeds the acceptance criteria This flag is not applicable when the sample concentrations are less than 5x the RDL (Metals only)
A	- Spectra identified as "Aldol Condensation Product"
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte
D	Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte
E	Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
H	The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection
N	The matrix spike recovery exceeds the acceptance criteria. This flag is not applicable when the sample concentration is greater than 4x the spike added. (Metals only)
P	- The RPD between the results for the two columns exceeds the method-specified criteria
R	Analytical results are from sample re-analysis
RE	Analytical results are from sample re-extraction.
J	Estimated value This represents an estimated concentration for Tentatively Identified Compounds (TICs)

Project Name: 515 SOMERVILLE AVENUE
Lab Number: L0907055
Project Number: 2315.03
Report Date: 06/10/09

REFERENCES

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

59 Method for the Determination of Volatile Petroleum Hydrocarbons (VPH). Massachusetts Department of Environmental Protection, DEA/ORS/BWSC. May 2004, Revision 1.1.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Woods Hole Labs shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Woods Hole Labs.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised June 9, 2009 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574.

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Haloacetic Acids, Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB).)
Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity. Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Calcium Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)
Solid Waste/Soil (Inorganic Parameters: Lead in Paint, pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), Reactivity. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3.3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9221E, 9222B, 9222D, 9223B, EPA 150.1, 180.1, 300.0, 353.2, SM2130B, 2320B, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B,4500NO3-F, EPA 200.7, EPA 200.8, 245.1. Organic Parameters: 504.1, 524.2, SM 6251B.)
Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, Lachat 10-107-06-1-B, SM2320B, 2340B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B.5, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
Drinking Water
Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl)
(EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Nitrite-N, Fluoride, Sulfate)
353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, EPA 150.1, SM4500H-B.
Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics)
(504 1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), SM6251B, 314.0.

Non-Potable Water
Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn)
(EPA 200.7 for: Al,Sb,As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Tl,Ti,V,Zn,Ce,Mg,Na,K)
245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2540B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Nitrate-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-B,C-Titr, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CN-CE, 2540D, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics)
(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCB-Water)
600/4-81-045-PCB-Oil

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
Drinking Water
Microbiology Parameters: SM9215B; MF-SM9222B; ENZ. SUB. SM9223; EC-SM9221E; MF-SM9222D; ENZ. SUB. SM9223;

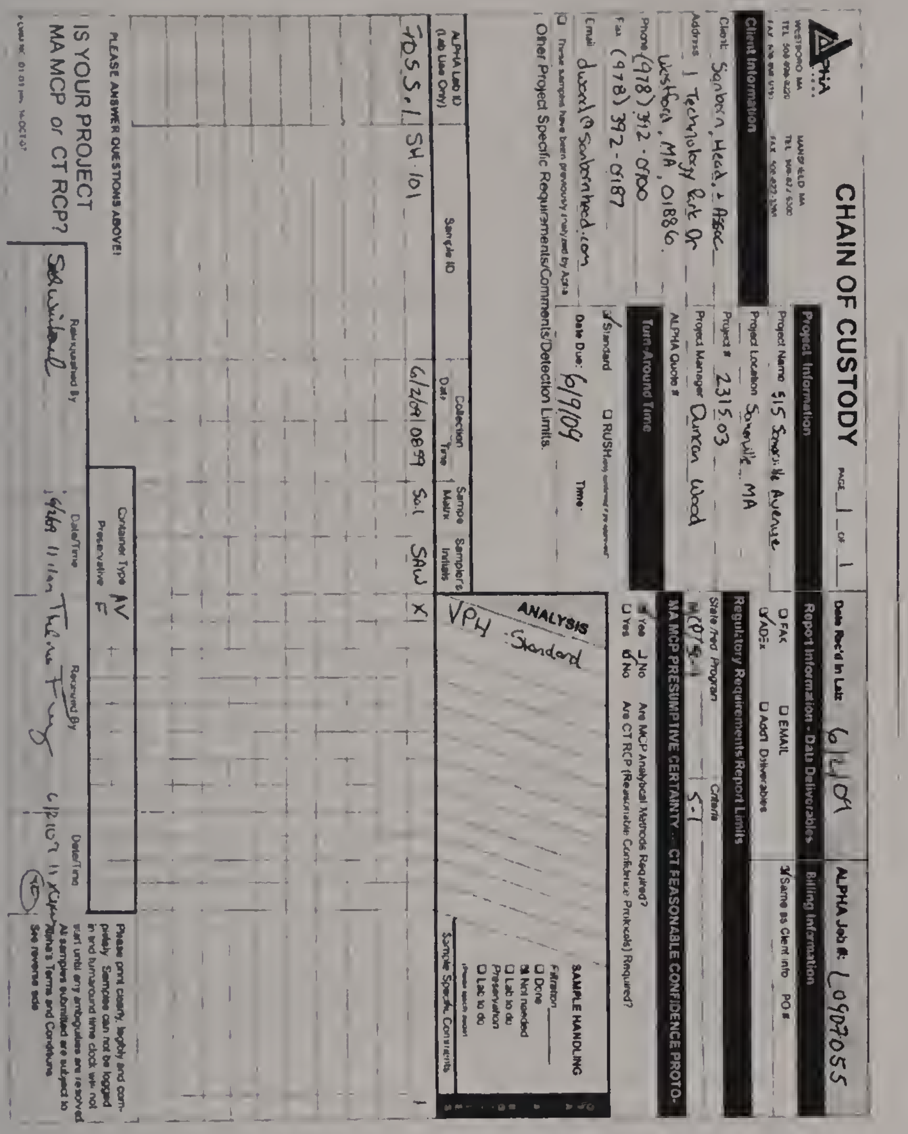
New Hampshire Department of Environmental Services Certificate/Lab ID: 200307.
Drinking Water (Inorganic Parameters: SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 110.2, 120.1, 150.1, 300.0, 325.2, 314.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. Organic Parameters: 504.1, 524.2, SM6251B.)
Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 150.1, 300.0, 305.1, 310.1, 325.2, 340.2, 350.1, 350.2, 351.1, 353.2, 354.1, 365.2, 375.4, 376.2, 405.1, 415.1, 420.1, 425.1, 1664A, SW-846 9010, 9030, 9040B, EPA 160.1, 160.2, 160.3, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH3-H, 4500NH3-E, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)
Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. Organic Parameters: SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935.
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, 331.0, 110.2, SM2120B, 2510B, 5310C, EPA 150.1, SM4500H-B, EPA 200.8, 245.2. Organic Parameters: 504.1, SM6251B, 524.2.)
Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.1, SM5220D, 4500Cl-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.2/.1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7.)
Solid & Chemicel Materiels (Inorganic Parameters: SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. Organic Parameters: SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 1312, 3540C, 3545, 3550B, 3580A, 5035L, 5035H, NJ OQA-QAM-025 Rev 7.)

New York Department of Health Certificate/Lab ID: 11148.
Drinking Weter (Inorganic Parameters. SM9223B, 9222B, 8215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 314 0, 331.0, SM2320B, EPA 300 0, 325.2, 110.2, SM2120B, 4500CN-E, 4500F-C, EPA 150.1, SM4500H-B, 4500NO3-F, 2540C, EPA 120.1, SM 2510B. Organic Parameters EPA 524.2, 504 1, SM6251B.)
Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, EPA 405 1, SM5210B, EPA 410.4, SM5220D, EPA 305.1, SM2310B-4a, EPA 310.1, SM2320B, EPA 200.7, 300.0, 325.2, LACHAT 10-117-07-1A or B, SM4500Cl-E, EPA 340.2, SM4500F-C, EPA 375 4, SM15 426C, EPA 350.1, 350.2, LACHAT 10-107-06-1-B, SM4500NH3-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO30F, EPA 354 1, SM4500-NO2-B, EPA 365.2, SM4500P-E, EPA 160.3, EPA 160 1, SM2540C, EPA 160.2, SM2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, S\M3500Cr-D, EPA 245.1, 245.2, 7470A, 110.2, SM2120B, 335 2, LACHAT 10-204-00-1-A, EPA 150.1, 9040B, SM4500-HB, EPA 1664A, EPA 415.1, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, EPA 376 2, SM4500S-D, EPA 425.1, SM5540C, EPA 3005A, 3015. Organic Parameters EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, 8021B, EPA 3510C, 5030B, 9010B, 9030B.)
Solid & Hazardous Weste (Inorganic Parameters. EPA 9040B, 9045C, 1010, 1030, SW-846 Ch 7 Sec 7,3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 3005A, 3050B, 3051, 9010B, 9030B. Organic Parameters EPA 8260B, 8270C, 8081A, 8151A, 8330, 8082, 8021B, 3540C, 3545, 3580, 5030B. 5035.)
Anelyticel Services *Protocol:* CLP Volatile Organics, CLP Inorganics, CLP PCB/Pesticides

Rhode Island Department of Health Certificate/Leb ID LAO00065.
Refer to MA-DEP Certificate for Potable and Non-Poteble Water.
Refer to NY-DOH Certificate for Potable and Non-Potable Water.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671.
Non-Potable Water (Organic Parameters: EPA 3510C, 625, 608, 8081A, 8082, 8151A, 8270C, 8330)
Solid & Hazardous Waste (Inorganic Parameters: EPA 1010, 1030, 1311, 3050B, 3051, 6010B, EPA 7.3.3.2, EPA 7.3.4.2, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065. Organic Parameters: 3540C, 3545, 3580A, 5035, 8021B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)



CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA
WESTBORO MA TEL 508-898-9220 FAX 508-898-9193
MANSFIELD MA TEL 508-822-9300 FAX 508-822-3288

Date Rec'd in Lab: 6/2/09

ALPHA Job #: L0907055

Client Information

Client: Sanborn, Head, + Assoc.
Address: 1 Technology Park Dr
Westford, MA, 01886.
Phone: (978) 392-0900
Fax: (978) 392-0187
Email: dwood@sanbornhead.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: 515 Somerville Avenue
Project Location: Somerville MA
Project #: 2315.03
Project Manager: Duncan Wood
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 6/9/09 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☑ ADEx ☐ Add'l Deliverables

Billing Information

☑ Same as Client info PO #

Regulatory Requirements/Report Limits

State /Fed Program: MCP/S-1 Criteria: S-1

MA MCP PRESUMPTIVE CERTAINTY -- CT REASONABLE CONFIDENCE PROTO-

☑ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☑ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits.

ANALYSIS: VPH :Standard

SAMPLE HANDLING
Filtration
☐ Done
☒ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VPH :Standard	Sample Specific Comments
7055.1	SH-101	6/2/09	0859	Soil	SAW	X	

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Container Type: AV
Preservative: F

Relinquished By	Date/Time	Received By	Date/Time
	6/2/09 11:10am		6/2/09 11:10am

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 14-OCT-07)

ALPHA ANALYTICAL

ANALYTICAL REPORT

Lab Number:	L0907709
Client:	Sanborn, Head & Associates, Inc. 1 Technology Park Drive Westford, MA 01886
ATTN:	Duncan Wood
Project Name:	515 SOMERVILLE AVE.
Project Number:	2315.03
Report Date:	06/18/09

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

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Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L0907709-01	SE GAS TANK1 SWALL	SOMERVILLE, MA	06/10/09 14:28
L0907709-02	SE GAS TANK1 BASE	SOMERVILLE, MA	06/10/09 14:43
L0907709-03	SE GAS TANK1 EWALL	SOMERVILLE, MA	06/10/09 14:25
L0907709-04	SE GAS TANK1 WWALL	SOMERVILLE, MA	06/10/09 14:36
L0907709-05	SE GAS TANK1 NWALL	SOMERVILLE, MA	06/10/09 14:40
L0907709-06	SW GAS TANK2 SWALL	SOMERVILLE, MA	06/10/09 15:30
L0907709-07	SW GAS TANK2 BASE	SOMERVILLE, MA	06/10/09 15:10
L0907709-08	SW GAS TANK2 NWALL	SOMERVILLE, MA	06/10/09 15:20
L0907709-09	SW GAS TANK2 EWALL	SOMERVILLE, MA	06/10/09 15:15
L0907709-10	SW GAS TANK2 WWALL	SOMERVILLE, MA	06/10/09 15:35
L0907709-11	WEST GT BASE	SOMERVILLE, MA	06/10/09 13:04

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A, B, C & D is required for "Presumptive Certainty" status		
A	Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B	Were all QA/QC procedures required for the specified analytical methods(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D	VPH and EPH methods only: Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	YES

A response to questions E and F is required for "Presumptive Certainty" status		
E	Were all QC performance standards and recommendations for the specified method(s) achieved?	NO
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody

For additional information, please contact Client Services at 800-624-9220.

MCP Related Narratives

VPH

L0907709-01 through -10 fell short of the recommended 1:1 methanol:soil ratio, due to insufficient soil in the sample vials.

L0907709-06 has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

EPH

Case Narrative (continued)

In reference to question E:

The WG366739-2/-3 LCS/LCSD RPD associated with L0907709-01 through -11 is above the acceptance criteria for Nonane (C9)(27%); however, the individual LCS/LCSD recoveries are within method limits. The results of the associated samples are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

Title: Technical Director/Representative Date: 06/18/09

ORGANICS

PETROLEUM HYDROCARBONS

Project Name:	515 SOMERVILLE AVE.	**Lab Number:**	L0907709
Project Number:	2315.03	**Report Date:**	06/18/09

SAMPLE RESULTS

Lab ID	L0907709-01	Date Collectad:	06/10/09 14:28
Client ID.	SE GAS TANK1 SWALL	Data Received.	06/11/09
Sample Location	SOMERVILLE, MA	Fiald Prep:	Not Specified
Matnx	Soil		
Analytical Method	59,VPH-04-1.1		
Anelytical Data	06/12/09 16.52		
Analyst	RC		
Parcent Solids	82%		

Quality Control Information

Condition of sample received	Satisfactory
Sample Temperature upon receipt	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio	2.3:1

Parameter	Result	Qualifier	Units	ROL	Dilution Factor
Volatile Petroleum Hydrocarbons - Westborough Lab					
C5-C8 Aliphatics	ND		mg/kg	8.05	1
C9-C12 Aliphatics	ND		mg/kg	8.05	1
C9-C10 Aromatics	ND		mg/kg	8.05	1
C5-C8 Aliphatics, Adjusted	ND		mg/kg	8.05	1
C9-C12 Aliphatics, Adjusted	ND		mg/kg	8.05	1
Benzene	ND		mg/kg	0.322	1
Toluene	ND		mg/kg	0.322	1
Ethylbenzene	ND		mg/kg	0.322	1
p/m-Xylene	ND		mg/kg	0.322	1
o-Xylene	ND		mg/kg	0.322	1
Methyl tert butyl ether	ND		mg/kg	0.181	1
Naphthalene	ND		mg/kg	1.61	1

Surrogata	% Recovary	Qualifier	Acceptance Critaria
2,5-Dibromotoluene-PID	85		70-130
2,5-Dibromotoluene-FID	88		70-130

Project Name:	515 SOMERVILLE AVE.	**Lab Number:**	L0907709
Project Number:	2315.03	**Report Date:**	06/18/09

SAMPLE RESULTS

Lab ID.	L0907709-01	Date Collectad.	06/10/09 14:28
Client ID:	SE GAS TANK1 SWALL	Data Racaived:	06/11/09
Sample Location	SOMERVILLE, MA	Fiald Prap:	Not Specifiad
Matrix.	Soil	Extraction Method	EPA 3540C
Analytical Method.	61,EPH-04-1	Extraction Data.	06/13/09 12:25
Analytical Date:	06/17/09 23.47	Cleanup Mathod1.	EPH-04-1
Analyst.	AS	Claanup Date1	06/17/09
Percent Solids:	82%		

Quality Control Information

Condition of sample received	Satisfactory
Sample Temperature upon receipt.	Received on Ice
Sample Extraction method	Extracted Per the Method

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Extractable Petroleum Hydrocarbona - Weatborough Lab					
C9-C18 Aliphatics	ND		mg/kg	8.13	1
C19-C36 Aliphatics	12.9		mg/kg	8.13	1
C11-C22 Aromatics	22.6		mg/kg	8.13	1
C11-C22 Aromatics, Adjusted	21.0		mg/kg	8.13	1
Naphthalene	ND		mg/kg	0.406	1
2-Methylnaphthalene	ND		mg/kg	0.406	1
Acenaphthylene	ND		mg/kg	0.406	1
Acenaphthene	ND		mg/kg	0.406	1
Fluorene	ND		mg/kg	0.406	1
Phenanthrene	ND		mg/kg	0.406	1
Anthracene	ND		mg/kg	0.408	1
Fluoranthene	0.422		mg/kg	0.406	1
Pyrene	ND		mg/kg	0.406	1
Benzo(a)anthracene	ND		mg/kg	0.406	1
Chrysene	ND		mg/kg	0.406	1
Benzo(b)fluoranthene	ND		mg/kg	0.406	1
Benzo(k)fluoranthene	ND		mg/kg	0.406	1
Benzo(e)pyrene	ND		mg/kg	0.406	1
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.406	1
Dibenzo(a,h)anthracene	ND		mg/kg	0.406	1
Benzo(ghi)perylene	1.20		mg/kg	0.406	1

Project Name:	515 SOMERVILLE AVE.	**Lab Number:**	L0907709
Project Number:	2315.03	**Report Date:**	06/18/09

SAMPLE RESULTS

Lab ID	L0907709-01	Date Collactad:	06/10/09 14:28
Client ID:	SE GAS TANK1 SWALL	Date Raceived	06/11/09
Sample Location.	SOMERVILLE, MA	Field Prep:	Not Specified

Parameter	Raault	Qualifier	Units	RDL	Oilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab					

Surrogata	% Recovery	Qualifier	Acceptance Critaria
Chloro-Octadecane	58		40-140
o-Terphenyl	85		40-140
2-Fluorobiphenyl	77		40-140
2-Bromonaphthalene	80		40-140

Project Name:	515 SOMERVILLE AVE.	**Lab Number:**	L0907709
Project Number:	2315.03	**Report Date:**	06/18/09

SAMPLE RESULTS

Lab ID:	L0907709-02	Data Collacted	06/10/09 14:43
Client ID:	SE GAS TANK1 BASE	Data Recaivad	06/11/09
Sample Location.	SOMERVILLE, MA	Field Prep:	Not Specifiad
Matrix:	Soil		
Analytical Method	59,VPH-04-1.1		
Analytical Date.	06/12/09 17:43		
Analyst.	RC		
Percent Solids	82%		

Quality Control Information

Condition of sampla received	Satisfactory
Sample Temperature upon receipt.	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio	1.4:1

Parameter	Result	Qualifier	Units	RDL	Oilution Factor
Volatile Petroleum Hydrocarbona - Westborough Lab					
C5-C8 Aliphatics	ND		mg/kg	5.24	1
C9-C12 Aliphatics	ND		mg/kg	5.24	1
C9-C10 Aromatics	ND		mg/kg	5.24	1
C5-C8 Aliphatics, Adjusted	ND		mg/kg	5.24	1
C9 C12 Aliphatics, Adjusted	ND		mg/kg	5.24	1
Benzene	ND		mg/kg	0.210	1
Toluene	ND		mg/kg	0.210	1
Ethylbenzene	ND		mg/kg	0.210	1
p/m-Xylene	ND		mg/kg	0.210	1
o-Xylene	ND		mg/kg	0.210	1
Methyl tert butyl ether	ND		mg/kg	0.106	1
Naphthalene	ND		mg/kg	1.06	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	83		70-130
2,5-Dibromotoluene-FID	86		70-130

Project Name: 515 SOMERVILLE AVE. **Lab Number:** L0907709
Project Number: 2315.03 **Report Date:** 06/18/09

SAMPLE RESULTS

Lab ID: L0907709-02
Client ID: SE GAS TANK1 BASE
Sample Location: SOMERVILLE, MA
Matrix: Soil
Analytical Method: 61,EPH-04-1
Analytical Date: 06/18/09 00:17
Analyst: AS
Percent Solids: 82%

Date Collected: 06/10/09 14:43
Date Received: 06/11/09
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 06/13/09 12:25
Cleanup Method1: EPH-04-1
Cleanup Date1: 06/17/09

Quality Control Information

Condition of sample received.	Satisfactory
Sample Temperature upon receipt	Received on Ice
Sample Extraction method	Extractad Per the Method

Parameter	Rasult	Qualifier	Units	RDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab					
C9-C18 Allphatics	ND		mg/kg	8.13	1
C19-C36 Allphatics	16.5		mg/kg	8.13	1
C11-C22 Aromatics	17.8		mg/kg	8.13	1
C11-C22 Aromatics, Adjusted	16.7		mg/kg	8.13	1
Naphthelene	ND		mg/kg	0.406	1
2-Methylnaphthalene	ND		mg/kg	0.406	1
Acenephthylene	ND		mg/kg	0.406	1
Acenaphthane	ND		mg/kg	0.406	1
Fluorene	ND		mg/kg	0.406	1
Phanenthrene	ND		mg/kg	0.406	1
Anthracene	ND		mg/kg	0.406	1
Fluoranthane	ND		mg/kg	0.406	1
Pyrene	ND		mg/kg	0.406	1
Banzo(a)anthracene	ND		mg/kg	0.406	1
Chrysene	ND		mg/kg	0.406	1
Benzo(b)fluoranthene	ND		mg/kg	0.406	1
Benzo(k)fluoranthene	ND		mg/kg	0.406	1
Benzo(a)pyrene	ND		mg/kg	0.406	1
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.408	1
Dibenzo(a,h)anthracene	ND		mg/kg	0.406	1
Benzo(ghi)perylene	1.01		mg/kg	0.406	1

Project Name: 515 SOMERVILLE AVE. **Lab Number:** L0907709
Project Number: 2315.03 **Report Date:** 06/18/09

SAMPLE RESULTS

Lab ID: L0907709-02
Client ID: SE GAS TANK1 BASE
Sample Location: SOMERVILLE, MA

Date Collected: 06/10/09 14:43
Date Received: 06/11/09
Field Prep: Not Specified

Parametar	Result	Qualifier	Units	RDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab					

Surrogata	% Recovery	Qualifiar	Acceptanca Criteria
Chloro-Octadecane	70		40-140
o-Terphenyl	92		40-140
2-Fluorobiphenyl	88		40-140
2-Bromonaphthalene	90		40-140

Project Name: 515 SOMERVILLE AVE. **Lab Number:** L0907709
Project Number: 2315.03 **Report Date:** 06/18/09

SAMPLE RESULTS

Lab ID: L0907709-03
Client ID: SE GAS TANK1 EWALL
Sample Location: SOMERVILLE, MA
Matrix: Soil
Analytical Method: 59,VPH-04-1.1
Analytical Date: 06/12/09 18:35
Analyst: RC
Percent Solids: 79%

Date Collected: 06/10/09 14:25
Date Received: 06/11/09
Field Prep: Not Specified

Quality Control Information

Condition of sample received	Satisfactory
Sample Temperature upon receipt.	Received on Ice
Were samples received in methanol?	Covenng the Soil
Methanol ratio	1 5 1

Parameter	Result	Qualifier	Units	RDL	Oilution Factor
Volatile Petroleum Hydrocarbona - Westborough Lab					
C5-C8 Aliphatics	ND		mg/kg	5.73	1
C9-C12 Aliphatics	ND		mg/kg	5.73	1
C9-C10 Aromatics	ND		mg/kg	5.73	1
C5-C8 Aliphatics, Adjusted	ND		mg/kg	5.73	1
C9-C12 Aliphatics, Adjusted	ND		mg/kg	5.73	1
Benzene	ND		mg/kg	0.229	1
Toluene	ND		mg/kg	0.229	1
Ethylbenzene	ND		mg/kg	0.229	1
p/m-Xylene	ND		mg/kg	0.229	1
o-Xylene	ND		mg/kg	0.229	1
Methyl tert butyl ether	ND		mg/kg	0.114	1
Naphthalene	ND		mg/kg	1.14	1

Surrogate	% Recovary	Qualifier	Acceptance Critaria
2,5-Dibromotoluene-PID	88		70-130
2,5-Dibromotoluene-FID	91		70-130

Project Name: 515 SOMERVILLE AVE. **Lab Number:** L0907709
Project Number: 2315.03 **Report Date:** 06/18/09

SAMPLE RESULTS

Lab ID: L0907709-03
Client ID: SE GAS TANK1 EWALL
Sample Location: SOMERVILLE, MA
Matrix: Soil
Analytical Method: 61,EPH-04-1
Analytical Date: 06/17/09 19:10
Analyst: AS
Percent Solids: 79%

Date Collected: 06/10/09 14:25
Date Received: 06/11/09
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 06/13/09 12:25
Cleanup Method1: EPH-04-1
Cleanup Date1: 06/17/09

Quality Control Information

Condition of sample receivad	Satisfactory
Sample Temperature upon receipt	Received on Ice
Sample Extraction method.	Extracted Per the Method

Parametar	Result	Qualifier	Units	RDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab					
C9-C18 Aliphatics	ND		mg/kg	8.44	1
C19-C36 Aliphatics	15.0		mg/kg	8.44	1
C11-C22 Aromatics	19.3		mg/kg	8.44	1
C11-C22 Aromatics, Adjustad	18.5		mg/kg	8.44	1
Naphthelene	ND		mg/kg	0.422	1
2-Methylnaphthalena	ND		mg/kg	0.422	1
Acenaphthylena	ND		mg/kg	0.422	1
Acenaphthene	ND		mg/kg	0.422	1
Fluorene	ND		mg/kg	0.422	1
Phenanthrene	ND		mg/kg	0.422	1
Anthracena	ND		mg/kg	0.422	1
Fluoranthene	ND		mg/kg	0.422	1
Pyrene	ND		mg/kg	0.422	1
Benzo(a)anthracene	ND		mg/kg	0.422	1
Chrysene	ND		mg/kg	0.422	1
Benzo(b)fluoranthene	ND		mg/kg	0.422	1
Benzo(k)fluoranthene	ND		mg/kg	0.422	1
Benzo(a)pyrene	ND		mg/kg	0.422	1
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.422	1
Dibenzo(a,h)anthracene	ND		mg/kg	0.422	1
Benzo(ghi)perylene	0.882		mg/kg	0.422	1

Project Name: 515 SOMERVILLE AVE
Project Number: 2315.03
Lab Number: L0907709
Report Date: 06/18/09

SAMPLE RESULTS

Lab ID: L0907709-03
Client ID: SE GAS TANK1 EWALL
Sample Location: SOMERVILLE, MA
Date Collected: 06/10/09 14.25
Date Received: 06/11/09
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab					

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	74		40-140
o-Terphenyl	101		40-140
2-Fluorobiphenyl	99		40-140
2-Bromonaphthalene	100		40-140

Project Name: 515 SOMERVILLE AVE
Project Number: 2315.03
Lab Number: L0907709
Report Date: 06/18/09

SAMPLE RESULTS

Lab ID: L0907709-04
Client ID: SE GAS TANK1 WWALL
Sample Location: SOMERVILLE, MA
Matrix: Soil
Analytical Method: 59,VPH-04-1.1
Analytical Date: 06/12/09 19:26
Analyst: RC
Percent Solids: 82%
Date Collected: 06/10/09 14:36
Date Received: 06/11/09
Field Prep: Not Specified

Quality Control Information

Condition of sample received	Satisfactory
Sample Temperature upon receipt	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio	1:5:1

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Volatile Petroleum Hydrocarbons - Westborough Lab					
C5-C8 Aliphatics	ND		mg/kg	5.53	1
C9-C12 Aliphatics	ND		mg/kg	5.53	1
C9-C10 Aromatics	ND		mg/kg	5.53	1
C5-C8 Aliphatics, Adjusted	ND		mg/kg	5.53	1
C9-C12 Aliphatics, Adjusted	ND		mg/kg	5.53	1
Benzene	ND		mg/kg	0.221	1
Toluene	ND		mg/kg	0.221	1
Ethylbenzene	ND		mg/kg	0.221	1
p/m-Xylene	ND		mg/kg	0.221	1
o-Xylene	ND		mg/kg	0.221	1
Methyl tert butyl ether	ND		mg/kg	0.110	1
Naphthalene	ND		mg/kg	1.10	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	83		70-130
2,5-Dibromotoluene-FID	84		70-130

Project Name: 515 SOMERVILLE AVE.
Project Number: 2315.03
Lab Number: L0907709
Report Date: 06/18/09

SAMPLE RESULTS

Lab ID: L0907709-04
Client ID: SE GAS TANK1 WWALL
Sample Location: SOMERVILLE, MA
Matrix: Soil
Analytical Method: 61,EPH-04-1
Analytical Date: 06/17/09 17:07
Analyst: AS
Percent Solids: 82%
Date Collected: 06/10/09 14:36
Date Received: 06/11/09
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 06/13/09 12:25
Cleanup Method1: EPH-04-1
Cleanup Date1: 06/17/09

Quality Control Information

Condition of sample received	Satisfactory
Sample Temperature upon receipt	Received on Ice
Sample Extraction method	Extracted Per the Method

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab					
C9-C18 Aliphatics	ND		mg/kg	8.13	1
C19-C36 Aliphatics	ND		mg/kg	8.13	1
C11-C22 Aromatics	ND		mg/kg	8.13	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	8.13	1
Naphthalene	ND		mg/kg	0.406	1
2-Methylnaphthalene	ND		mg/kg	0.406	1
Acenaphthylene	ND		mg/kg	0.406	1
Acenaphthene	ND		mg/kg	0.406	1
Fluorene	ND		mg/kg	0.406	1
Phenanthrene	ND		mg/kg	0.406	1
Anthracene	ND		mg/kg	0.406	1
Fluoranthene	ND		mg/kg	0.406	1
Pyrene	ND		mg/kg	0.406	1
Benzo(a)anthracene	ND		mg/kg	0.406	1
Chrysene	ND		mg/kg	0.406	1
Benzo(b)fluoranthene	ND		mg/kg	0.406	1
Benzo(k)fluoranthene	ND		mg/kg	0.406	1
Benzo(a)pyrene	ND		mg/kg	0.406	1
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.406	1
Dibenzo(a,h)anthracene	ND		mg/kg	0.406	1
Benzo(ghi)perylene	0.889		mg/kg	0.406	1

Project Name: 515 SOMERVILLE AVE.
Project Number: 2315.03
Lab Number: L0907709
Report Date: 06/18/09

SAMPLE RESULTS

Lab ID: L0907709-04
Client ID: SE GAS TANK1 WWALL
Sample Location: SOMERVILLE, MA
Date Collected: 06/10/09 14:36
Date Received: 06/11/09
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab					

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	62		40-140
o-Terphenyl	87		40-140
2-Fluorobiphenyl	91		40-140
2-Bromonaphthalene	91		40-140

SAMPLE RESULTS

Lab ID: L0907709-05
Client ID: SE GAS TANK1 NWALL
Sample Location: SOMERVILLE, MA
Matrix: Soil
Analytical Method: 59,VPH-04-1.1
Analytical Date: 06/12/09 20:18
Analyst: RC
Percent Solids: 86%

Date Collected: 06/10/09 14:40
Date Received: 06/11/09
Field Prep: Not Specified

Quality Control Information

Condition of sample received	Satisfactory
Sample Temperature upon receipt	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio	1.5 1

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Volatile Petroleum Hydrocarbons - Westborough Lab					
C5-C8 Aliphatics	ND		mg/kg	4.92	1
C9-C12 Aliphatics	ND		mg/kg	4.92	1
C9-C10 Aromatics	ND		mg/kg	4.92	1
C5-C8 Aliphatics, Adjusted	ND		mg/kg	4.92	1
C9-C12 Aliphatics, Adjusted	ND		mg/kg	4.92	1
Benzene	ND		mg/kg	0.197	1
Toluene	ND		mg/kg	0.197	1
Ethylbenzene	ND		mg/kg	0.197	1
p/m-Xylene	ND		mg/kg	0.197	1
o-Xylene	ND		mg/kg	0.197	1
Methyl tert butyl ether	ND		mg/kg	0.098	1
Naphthalene	ND		mg/kg	0.984	1

Surrogate	% Recovery	Qualifier	Acceptence Criteria
2,5-Dibromotoluene-PID	75		70-130
2,5-Dibromotoluene-FID	77		70-130

SAMPLE RESULTS

Lab ID: L0907709-05
Client ID: SE GAS TANK1 NWALL
Sample Location: SOMERVILLE, MA
Matrix: Soil
Analytical Method: 61,EPH-04-1
Analytical Date: 06/17/09 19:41
Analyst: AS
Percent Solids: 86%

Date Collected: 06/10/09 14:40
Date Received: 06/11/09
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 06/13/09 12:25
Cleanup Method1: EPH-04-1
Cleanup Date1: 06/17/09

Quality Control Information

Condition of sample received	Satisfactory
Semple Temperature upon receipt	Received on Ice
Sample Extraction method	Extracted Per the Method

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab					
C9-C18 Aliphatics	ND		mg/kg	7.75	1
C19-C36 Aliphatics	11.4		mg/kg	7.75	1
C11-C22 Aromatics	17.2		mg/kg	7.75	1
C11-C22 Aromatics, Adjusted	16.4		mg/kg	7.75	1
Naphthelene	ND		mg/kg	0.388	1
2-Methylnephthalene	ND		mg/kg	0.388	1
Acenaphthylene	ND		mg/kg	0.388	1
Acenaphthene	ND		mg/kg	0.388	1
Fluorene	ND		mg/kg	0.388	1
Phenanthrene	ND		mg/kg	0.388	1
Anthracene	ND		mg/kg	0.388	1
Fluoranthene	ND		mg/kg	0.388	1
Pyrene	ND		mg/kg	0.388	1
Benzo(e)anthracene	ND		mg/kg	0.388	1
Chrysene	ND		mg/kg	0.388	1
Benzo(b)fluorenthene	ND		mg/kg	0.388	1
Benzo(k)fluoranthene	ND		mg/kg	0.388	1
Benzo(a)pyrene	ND		mg/kg	0.388	1
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.388	1
Dibenzo(a,h)anthracene	ND		mg/kg	0.388	1
Benzo(ghi)perylene	0.758		mg/kg	0.388	1

SAMPLE RESULTS

Lab ID: L0907709-05
Client ID: SE GAS TANK1 NWALL
Sample Location: SOMERVILLE, MA

Date Collected: 06/10/09 14:40
Date Received: 06/11/09
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab					

Surrogate	% Recovery	Qualifiar	Acceptence Criteria
Chloro-Octadecane	58		40-140
o-Terphenyl	86		40-140
2-Fluorobiphenyl	82		40-140
2-Bromonaphthalene	83		40-140

SAMPLE RESULTS

Lab ID: L0907709-06
Client ID: SW GAS TANK2 SWALL
Sample Location: SOMERVILLE, MA
Matrix: Soil
Analytical Method: 59,VPH-04-1.1
Analytical Date: 06/13/09 01:14
Analyst: RC
Percent Solids: 88%

Date Collected: 06/10/09 15:30
Date Received: 06/11/09
Field Prep: Not Specified

Quality Control Information

Condition of sample received	Satisfactory
Sample Temperature upon receipt	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol retio	1 8 1

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Volatile Patroleum Hydrocarbons - Westborough Lab					
C5-C8 Aliphatics	363		mg/kg	52.3	10
C9-C12 Aliphetics	428		mg/kg	52.3	10
C9-C10 Aromatics	170		mg/kg	52.3	10
C5-C8 Aliphatics, Adjusted	357		mg/kg	52.3	10
C9-C12 Aliphelics, Adjusted	232		mg/kg	52.3	10
Benzene	ND		mg/kg	2.09	10
Toluene	5.91		mg/kg	2.09	10
Ethylbenzene	ND		mg/kg	2.09	10
p/m-Xylene	17.8		mg/kg	2.09	10
o-Xylene	7.58		mg/kg	2.09	10
Methyl tert butyl ether	ND		mg/kg	1.04	10
Naphthalene	ND		mg/kg	10.4	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	102		70-130
2,5-Dibromotoluene-FID	102		70-130

06180916:21

Project Name:	515 SOMERVILLE AVE	**Lab Number:**	L0907709
Project Number:	2315.03	**Report Date:**	06/18/09

SAMPLE RESULTS

Lab ID	L0907709-06	Date Collected	06/10/09 15.30
Client ID:	SW GAS TANK2 SWALL	Date Received.	06/11/09
Sample Location:	SOMERVILLE, MA	Field Prep:	Not Specified
Matrix	Soil	Extraction Method:	EPA 3540C
Analytical Method:	61,EPH-04-1	Extraction Date:	06/13/09 12:25
Analytical Date	06/17/09 16.37	Cleanup Method1:	EPH-04-1
Analyst	AS	Cleanup Date1.	06/17/09
Percent Solids	88%		

Quality Control Information

Condition of sample received	Satisfactory
Sample Temperature upon receipt	Received on Ice
Sample Extraction method	Extracted Per the Method

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab					
C9-C18 Aliphatics	ND		mg/kg	7.58	1
C19-C36 Aliphatics	8.46		mg/kg	7.58	1
C11-C22 Aromatics	11.2		mg/kg	7.58	1
C11-C22 Aromatics, Adjusted	11.2		mg/kg	7.58	1
Naphthalene	ND		mg/kg	0.379	1
2 Methylnaphthalene	ND		mg/kg	0.379	1
Acenaphthylene	ND		mg/kg	0.379	1
Acenaphthene	ND		mg/kg	0.379	1
Fluorene	ND		mg/kg	0.379	1
Phenanthrene	ND		mg/kg	0.379	1
Anthracene	ND		mg/kg	0.379	1
Fluoranthene	ND		mg/kg	0.379	1
Pyrene	ND		mg/kg	0.379	1
Benzo(a)anthracene	ND		mg/kg	0.379	1
Chrysene	ND		mg/kg	0.379	1
Benzo(b)fluoranthene	ND		mg/kg	0.379	1
Benzo(k)fluoranthene	ND		mg/kg	0.379	1
Benzo(a)pyrene	ND		mg/kg	0.379	1
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.379	1
Dibenzo(a,h)anthracene	ND		mg/kg	0.379	1
Benzo(ghi)perylene	ND		mg/kg	0.379	1

06180916:21

Project Name:	515 SOMERVILLE AVE.	**Lab Number:**	L0907709
Project Number:	2315.03	**Report Date:**	06/18/09

SAMPLE RESULTS

Lab ID:	L0907709-06	Date Collected	06/10/09 15:30
Client ID:	SW GAS TANK2 SWALL	Date Received	06/11/09
Sample Location.	SOMERVILLE, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab					

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	65		40-140
o-Terphenyl	90		40-140
2-Fluorobiphenyl	91		40-140
2-Bromonaphthalene	91		40-140

06180916:21

Project Name:	515 SOMERVILLE AVE.	**Lab Number:**	L0907709
Project Number:	2315.03	**Report Date:**	06/18/09

SAMPLE RESULTS

Lab ID:	L0907709-07	Date Collected	06/10/09 15:10
Client ID:	SW GAS TANK2 BASE	Date Received:	06/11/09
Sample Location:	SOMERVILLE, MA	Field Prep:	Not Specified
Matrix	Soil		
Analytical Method:	59,VPH-04-1.1		
Analytical Date.	06/12/09 21:09		
Analyst:	RC		
Percent Solids	91%		

Quality Control Information

Condition of sample received	Satisfactory
Sample Temperature upon receipt	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio	2 1 1

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Volatile Petroleum Hydrocarbons - Westborough Lab					
C5-C8 Aliphatics	ND		mg/kg	6.44	1
C9-C12 Aliphatics	ND		mg/kg	6.44	1
C9-C10 Aromatics	ND		mg/kg	6.44	1
C5-C8 Aliphatics, Adjusted	ND		mg/kg	6.44	1
C9-C12 Aliphatics, Adjusted	ND		mg/kg	6.44	1
Benzene	ND		mg/kg	0.258	1
Toluene	ND		mg/kg	0.258	1
Ethylbenzene	ND		mg/kg	0.258	1
p/m-Xylene	ND		mg/kg	0.258	1
o-Xylene	ND		mg/kg	0.258	1
Methyl tert butyl ether	ND		mg/kg	0.129	1
Naphthalene	ND		mg/kg	1.29	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	85		70-130
2,5-Dibromotoluene-FID	86		70-130

06180916:21

Project Name:	515 SOMERVILLE AVE.	**Lab Number:**	L0907709
Project Number:	2315.03	**Report Date:**	06/18/09

SAMPLE RESULTS

Lab ID:	L0907709-07	Date Collected:	06/10/09 15:10
Client ID	SW GAS TANK2 BASE	Date Received	06/11/09
Sample Location:	SOMERVILLE, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method.	EPA 3540C
Analytical Method:	61,EPH-04-1	Extraction Date:	06/13/09 12:25
Analytical Date	06/17/09 16:06	Cleanup Method1.	EPH-04-1
Analyst.	AS	Cleanup Date1	06/17/09
Percent Solids.	91%		

Quality Control Information

Condition of sample received	Satisfactory
Sample Temperature upon receipt	Received on Ice
Sample Extraction method	Extracted Per the Method

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab					
C9-C18 Aliphatics	ND		mg/kg	7.33	1
C19-C36 Aliphatics	ND		mg/kg	7.33	1
C11-C22 Aromatics	ND		mg/kg	7.33	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	7.33	1
Naphthalene	ND		mg/kg	0.366	1
2-Methylnaphthalene	ND		mg/kg	0.366	1
Acenaphthylene	ND		mg/kg	0.366	1
Acenaphthene	ND		mg/kg	0.366	1
Fluorene	ND		mg/kg	0.366	1
Phenanthrene	ND		mg/kg	0.366	1
Anthracene	ND		mg/kg	0.366	1
Fluoranthene	ND		mg/kg	0.366	1
Pyrene	ND		mg/kg	0.366	1
Benzo(a)anthracene	ND		mg/kg	0.366	1
Chrysene	ND		mg/kg	0.366	1
Benzo(b)fluoranthene	ND		mg/kg	0.366	1
Benzo(k)fluoranthene	ND		mg/kg	0.366	1
Benzo(a)pyrene	ND		mg/kg	0.366	1
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.366	1
Dibenzo(a,h)anthracene	ND		mg/kg	0.366	1
Benzo(ghi)perylene	ND		mg/kg	0.366	1

Project Name: 515 SOMERVILLE AVE.
Lab Number: L0907709
Project Number: 2315.03
Report Date: 06/18/09

SAMPLE RESULTS

Lab ID: L0907709-07
Client ID: SW GAS TANK2 BASE
Sample Location: SOMERVILLE, MA
Date Collected: 06/10/09 15:10
Date Received: 06/11/09
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor

Extractable Petroleum Hydrocarbons - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	58		40-140
o-Terphenyl	88		40-140
2-Fluorobiphenyl	94		40-140
2-Bromonaphthalene	95		40-140

Project Name: 515 SOMERVILLE AVE.
Lab Number: L0907709
Project Number: 2315.03
Report Date: 06/18/09

SAMPLE RESULTS

Lab ID: L0907709-08
Client ID: SW GAS TANK2 NWALL
Sample Location: SOMERVILLE, MA
Matrix: Soil
Analytical Method: 59,VPH-04-1.1
Analytical Date: 06/15/09 16:55
Analyst: RC
Percent Solids: 83%
Date Collected: 06/10/09 15:20
Date Received: 06/11/09
Field Prep: Not Specified

Quality Control Information

Condition of sample received	Satisfactory
Sample Temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1 7:1

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Volatile Petroleum Hydrocarbons - Westborough Lab					
C5-C8 Aliphatics	ND		mg/kg	8 12	1
C9-C12 Aliphatics	8 77		mg/kg	8 12	1
C9-C10 Aromatics	ND		mg/kg	6.12	1
C5-C8 Aliphatics, Adjusted	ND		mg/kg	8 12	1
C9-C12 Aliphetics, Adjusted	8.18		mg/kg	6 12	1
Benzene	ND		mg/kg	0 245	1
Toluene	0.307		mg/kg	0 245	1
Ethylbenzene	ND		mg/kg	0 245	1
p/m-Xylene	0 618		mg/kg	0 245	1
o-Xylene	ND		mg/kg	0 245	1
Methyl tert butyl ether	ND		mg/kg	0 122	1
Naphthalene	ND		mg/kg	1 22	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	89		70-130
2,5-Dibromotoluene-FID	89		70-130

Project Name: 515 SOMERVILLE AVE.
Lab Number: L0907709
Project Number: 2315.03
Report Date: 06/18/09

SAMPLE RESULTS

Lab ID: L0907709-08
Client ID: SW GAS TANK2 NWALL
Sample Location: SOMERVILLE, MA
Matrix: Soil
Analytical Method: 61,EPH-04-1
Analytical Date: 06/17/09 20:12
Analyst: AS
Percent Solids: 83%
Date Collected: 06/10/09 15:20
Date Received: 06/11/09
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 06/13/09 12:25
Cleanup Method1: EPH-04-1
Cleanup Date1: 06/17/09

Quality Control Information

Condition of sample received	Satisfactory
Sample Temperature upon receipt:	Received on Ice
Sample Extraction method	Extracted Per the Method

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab					
C9-C18 Aliphatics	11.8		mg/kg	8.03	1
C19-C36 Aliphatics	54 8		mg/kg	8 03	1
C11-C22 Aromatics	71.1		mg/kg	8 03	1
C11-C22 Aromatics, Adjusted	63 8		mg/kg	8 03	1
Naphthalene	ND		mg/kg	0 402	1
2-Methylnaphthalene	ND		mg/kg	0 402	1
Acenaphthylene	ND		mg/kg	0 402	1
Acenaphthene	ND		mg/kg	0 402	1
Fluorene	ND		mg/kg	0 402	1
Phenanthrene	0 512		mg/kg	0 402	1
Anthracene	ND		mg/kg	0 402	1
Fluoranthena	1.01		mg/kg	0 402	1
Pyrene	0.839		mg/kg	0 402	1
Benzo(e)anthracene	0 811		mg/kg	0 402	1
Chrysene	0 950		mg/kg	0 402	1
Benzo(b)fluoranthene	0 758		mg/kg	0 402	1
Benzo(k)fluoranthene	0.585		mg/kg	0 402	1
Benzo(a)pyrene	0 699		mg/kg	0 402	1
Indano(1,2,3-cd)Pyrene	0 532		mg/kg	0 402	1
Dibenzo(e h)anthracene	ND		mg/kg	0 402	1
Benzo(ghi)perylene	1 02		mg/kg	0 402	1

Project Name: 515 SOMERVILLE AVE.
Lab Number: L0907709
Project Number: 2315.03
Report Date: 06/18/09

SAMPLE RESULTS

Lab ID: L0907709-08
Client ID: SW GAS TANK2 NWALL
Sample Location: SOMERVILLE, MA
Date Collected: 06/10/09 15:20
Date Received: 06/11/09
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor

Extractable Petroleum Hydrocarbons - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	71		40-140
o-Terphenyl	108		40-140
2-Fluorobiphenyl	95		40-140
2-Bromonaphthalene	98		40-140

Project Name:	515 SOMERVILLE AVE.	**Lab Number:**	L0907709
Project Number:	2315.03	**Report Date:**	06/18/09

SAMPLE RESULTS

Lab ID:	L0907709-09	Date Collected:	06/10/09 15:15
Client ID:	SW GAS TANK2 EWALL	Date Received:	06/11/09
Sample Location:	SOMERVILLE, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	59,VPH-04-1.1		
Analytical Date:	06/15/09 17:46		
Analyst:	RC		
Percent Solids:	85%		

Quality Control Information

Condition of sample received	Satisfactory
Sample Temperature upon receipt	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio	1.5:1

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Volatile Petroleum Hydrocarbons - Westborough Lab					
C5-C8 Aliphatics	ND		mg/kg	5.29	1
C9-C12 Aliphatics	ND		mg/kg	5.29	1
C9-C10 Aromatics	ND		mg/kg	5.29	1
C5-C8 Aliphatics, Adjusted	ND		mg/kg	5.29	1
C9-C12 Aliphatics, Adjusted	ND		mg/kg	5.29	1
Benzene	ND		mg/kg	0.212	1
Toluene	ND		mg/kg	0.212	1
Ethylbenzene	ND		mg/kg	0.212	1
p/m-Xylene	0.284		mg/kg	0.212	1
o-Xylene	ND		mg/kg	0.212	1
Methyl tert butyl ether	ND		mg/kg	0.106	1
Naphthalene	ND		mg/kg	1.06	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	89		70-130
2,5-Dibromotoluene-FID	90		70-130

Project Name:	515 SOMERVILLE AVE.	**Lab Number:**	L0907709
Project Number:	2315.03	**Report Date:**	06/18/09

SAMPLE RESULTS

Lab ID:	L0907709-09	Date Collected:	06/10/09 15:15
Client ID:	SW GAS TANK2 EWALL	Date Received:	06/11/09
Sample Location:	SOMERVILLE, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3540C
Analytical Method:	61,EPH-04-1	Extraction Date:	06/13/09 12:25
Analytical Date:	06/17/09 18:39	Cleanup Method1:	EPH-04-1
Analyst:	AS	Cleanup Date1:	06/17/09
Percent Solids:	85%		

Quality Control Information

Condition of sample received	Satisfactory
Sample Temperature upon receipt	Received on Ice
Sample Extraction method	Extracted Per the Method

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab					
C9-C18 Aliphatics	ND		mg/kg	7.84	1
C19-C36 Aliphatics	12.5		mg/kg	7.84	1
C11-C22 Aromatics	35.6		mg/kg	7.84	1
C11-C22 Aromatics, Adjusted	25.2		mg/kg	7.84	1
Naphthalene	ND		mg/kg	0.392	1
2-Methylnaphthalene	ND		mg/kg	0.392	1
Acenaphthylene	ND		mg/kg	0.392	1
Acenaphthene	ND		mg/kg	0.392	1
Fluorene	ND		mg/kg	0.392	1
Phenanthrene	1.66		mg/kg	0.392	1
Anthracene	ND		mg/kg	0.392	1
Fluoranthene	1.74		mg/kg	0.392	1
Pyrene	1.48		mg/kg	0.392	1
Benzo(a)anthracene	0.898		mg/kg	0.392	1
Chrysene	0.899		mg/kg	0.392	1
Benzo(b)fluoranthene	0.739		mg/kg	0.392	1
Benzo(k)fluoranthene	0.814		mg/kg	0.392	1
Benzo(a)pyrene	0.675		mg/kg	0.392	1
Indeno(1,2,3-cd)Pyrene	0.501		mg/kg	0.392	1
Dibenzo(a,h)anthracene	ND		mg/kg	0.392	1
Benzo(ghi)perylene	1.43		mg/kg	0.392	1

Project Name:	515 SOMERVILLE AVE.	**Lab Number:**	L0907709
Project Number:	2315.03	**Report Date:**	06/18/09

SAMPLE RESULTS

Lab ID:	L0907709-09	Date Collected:	06/10/09 15:15
Client ID:	SW GAS TANK2 EWALL	Date Received:	06/11/09
Sample Location:	SOMERVILLE, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab					

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	78		40-140
o-Terphenyl	102		40-140
2-Fluorobiphenyl	91		40-140
2-Bromonaphthalene	94		40-140

Project Name:	515 SOMERVILLE AVE.	**Lab Number:**	L0907709
Project Number:	2315.03	**Report Date:**	06/18/09

SAMPLE RESULTS

Lab ID:	L0907709-10	Date Collected:	06/10/09 15:35
Client ID:	SW GAS TANK2 WWALL	Date Received:	06/11/09
Sample Location:	SOMERVILLE, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	59,VPH-04-1.1		
Analytical Date:	06/17/09 17:16		
Analyst:	RC		
Percent Solids:	84%		

Quality Control Information

Condition of sample received	Satisfactory
Sample Temperature upon receipt	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio	1.5:1

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Volatile Petroleum Hydrocarbons - Westborough Lab					
C5-C8 Aliphatics	30.7		mg/kg	5.38	1
C9-C12 Aliphatics	54.9		mg/kg	5.38	1
C9-C10 Aromatics	23.9		mg/kg	5.38	1
C5-C8 Aliphatics, Adjusted	26.9		mg/kg	5.38	1
C9-C12 Aliphatics, Adjusted	15.4		mg/kg	5.38	1
Benzene	0.790		mg/kg	0.215	1
Toluene	3.01		mg/kg	0.215	1
Ethylbenzene	1.81		mg/kg	0.215	1
p/m-Xylene	10.5		mg/kg	0.216	1
o-Xylene	3.53		mg/kg	0.215	1
Methyl tert butyl ether	ND		mg/kg	0.108	1
Naphthalene	1.74		mg/kg	1.08	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	101		70-130
2,5-Dibromotoluene-FID	103		70-130

SAMPLE RESULTS

Lab ID:	L0907709-10	Date Collected:	06/10/09 15:35
Client ID:	SW GAS TANK2 WWALL	Date Received:	06/11/09
Sample Location:	SOMERVILLE, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3540C
Analytical Method:	61,EPH-04-1	Extraction Date:	06/13/09 12:25
Analytical Date:	06/17/09 17:38	Cleanup Method1:	EPH-04-1
Analyst:	AS	Cleanup Date1:	06/17/09
Percent Solids:	84%		

Quality Control Information

Condition of sample received	Satisfactory
Sample Temperature upon receipt	Received on Ice
Sample Extraction method	Extracted Per the Method

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab					
C9-C18 Aliphatics	ND		mg/kg	7.94	1
C19-C36 Aliphatics	21.4		mg/kg	7.94	1
C11-C22 Aromatics	19.5		mg/kg	7.94	1
C11-C22 Aromatics, Adjusted	16.6		mg/kg	7.94	1
Naphthalene	ND		mg/kg	0.397	1
2-Methylnaphthalene	ND		mg/kg	0.397	1
Acenaphthylene	ND		mg/kg	0.397	1
Acenephthene	ND		mg/kg	0.397	1
Fluorene	ND		mg/kg	0.397	1
Phenanthrene	ND		mg/kg	0.397	1
Anthracene	ND		mg/kg	0.397	1
Fluoranthene	ND		mg/kg	0.397	1
Pyrene	ND		mg/kg	0.397	1
Benzo(a)anthracene	ND		mg/kg	0.397	1
Chrysene	ND		mg/kg	0.397	1
Benzo(b)fluoranthene	ND		mg/kg	0.397	1
Benzo(k)fluoranthene	ND		mg/kg	0.397	1
Benzo(a)pyrene	ND		mg/kg	0.397	1
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.397	1
Dibenzo(a,h)anthracene	ND		mg/kg	0.397	1
Benzo(ghi)perylene	0.875		mg/kg	0.397	1

SAMPLE RESULTS

Lab ID:	L0907709-10	Date Collected:	06/10/09 15:35
Client ID:	SW GAS TANK2 WWALL	Date Received:	06/11/09
Sample Location:	SOMERVILLE, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab					

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	68		40-140
o-Terphenyl	93		40-140
2-Fluorobiphenyl	83		40-140
2-Bromonaphthalene	65		40-140

SAMPLE RESULTS

Lab ID:	L0907709-11	Date Collected:	06/10/09 13:04
Client ID:	WEST GT BASE	Date Received:	06/11/09
Sample Location:	SOMERVILLE, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	59,VPH-04-1.1		
Analytical Date:	06/15/09 19:29		
Analyst:	RC		
Percent Solids:	92%		

Quality Control Information

Condition of sample received	Satisfactory
Sample Temperature upon receipt	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio	1 1 +/- 25%

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Volatile Petroleum Hydrocarbons - Westborough Lab					
C5-C8 Aliphatics	ND		mg/kg	3.06	1
C9-C12 Aliphatics	3.72		mg/kg	3.06	1
C9-C10 Aromatics	ND		mg/kg	3.06	1
C5-C8 Aliphatics, Adjusted	ND		mg/kg	3.08	1
C9-C12 Aliphatics, Adjusted	3.59		mg/kg	3.06	1
Benzene	ND		mg/kg	0.123	1
Toluene	ND		mg/kg	0.123	1
Ethylbenzene	ND		mg/kg	0.123	1
p/m-Xylene	0.124		mg/kg	0.123	1
o-Xylene	ND		mg/kg	0.123	1
Methyl tert butyl ether	ND		mg/kg	0.062	1
Naphthalene	ND		mg/kg	0.616	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	90		70-130
2,5-Dibromotoluene-FID	90		70-130

SAMPLE RESULTS

Lab ID:	L0907709-11	Date Collected:	06/10/09 13:04
Client ID:	WEST GT BASE	Date Received:	06/11/09
Sample Location:	SOMERVILLE, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3540C
Analytical Method:	61,EPH-04-1	Extraction Date:	06/13/09 12:32
Analytical Date:	06/17/09 18:08	Cleanup Method1:	EPH-04-1
Analyst:	AS	Cleanup Date1:	06/17/09
Percent Solids:	92%		

Quality Control Information

Condition of sample received:	Satisfactory
Sample Temperature upon receipt	Received on Ice
Sample Extraction method	Extracted Per the Method

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab					
C9-C16 Aliphatics	ND		mg/kg	7.25	1
C19-C36 Aliphatics	ND		mg/kg	7.25	1
C11-C22 Aromatics	ND		mg/kg	7.25	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	7.25	1
Naphthalene	ND		mg/kg	0.382	1
2-Methylnaphthalene	ND		mg/kg	0.362	1
Acenaphthylene	ND		mg/kg	0.362	1
Acenaphthene	ND		mg/kg	0.362	1
Fluorene	ND		mg/kg	0.362	1
Phenanthrene	ND		mg/kg	0.362	1
Anthracene	ND		mg/kg	0.362	1
Fluoranthene	ND		mg/kg	0.362	1
Pyrene	ND		mg/kg	0.362	1
Benzo(a)anthracene	ND		mg/kg	0.362	1
Chrysene	ND		mg/kg	0.362	1
Benzo(b)fluoranthene	ND		mg/kg	0.362	1
Benzo(k)fluoranthene	ND		mg/kg	0.362	1
Benzo(a)pyrene	ND		mg/kg	0.382	1
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.362	1
Dibenzo(a,h)anthracene	ND		mg/kg	0.362	1
Benzo(ghi)perylene	ND		mg/kg	0.362	1

SAMPLE RESULTS

Lab ID:	L0907709-11	Date Collected	06/10/09 13:04
Client ID	WEST GT BASE	Date Received	06/11/09
Sample Location	SOMERVILLE, MA	Field Prep.	Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab					

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	63		40-140
o-Terphenyl	99		40-140
2-Fluorobiphenyl	91		40-140
2-Bromonaphthalene	91		40-140

Method Blank Analysis
Batch Quality Control

Analytical Method 59,VPH-04-1.1
Analytical Date 06/12/09 10:18
Analyst. RC

Parameter	Result	Qualifier	Units	RDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 01-07 Batch: WG366555-3				
C5-C8 Aliphatics	ND		mg/kg	2.67
C9-C12 Aliphatics	ND		mg/kg	2.67
C9-C10 Aromatics	ND		mg/kg	2.67
C5-C8 Aliphatics, Adjusted	ND		mg/kg	2.67
C9-C12 Aliphatics, Adjusted	ND		mg/kg	2.67
Benzene	ND		mg/kg	0.107
Toluene	ND		mg/kg	0.107
Ethylbenzene	ND		mg/kg	0.107
p/m-Xylene	ND		mg/kg	0.107
o-Xylene	ND		mg/kg	0.107
Methyl tert butyl ether	ND		mg/kg	0.053
Naphthalene	ND		mg/kg	0.533

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	92		70-130
2,5-Dibromotoluene-FID	97		70-130

Method Blank Analysis
Batch Quality Control

Analytical Method.	61,EPH-04-1	Extraction Method:	EPA 3540C
Analytical Date	06/15/09 15:27	Extraction Date.	06/13/09 12:25
Analyst.	AS	Cleanup Method1.	EPH-04-1
		Cleanup Date1	06/15/09

Parameter	Result	Qualifier	Units	RDL
Extractable Petroleum Hydrocarbons - Westborough Lab for sample(s): 01-11 Batch: WG366739-1				
C9-C18 Aliphatics	ND		mg/kg	6.67
C19-C36 Aliphatics	ND		mg/kg	6.67
C11-C22 Aromatics	ND		mg/kg	6.67
C11-C22 Aromatics, Adjusted	ND		mg/kg	6.67
Naphthalene	ND		mg/kg	0.333
2-Methylnaphthalene	ND		mg/kg	0.333
Acenaphthylene	ND		mg/kg	0.333
Acenaphthene	ND		mg/kg	0.333
Fluorene	ND		mg/kg	0.333
Phenanthrene	ND		mg/kg	0.333
Anthracene	ND		mg/kg	0.333
Fluoranthene	ND		mg/kg	0.333
Pyrene	ND		mg/kg	0.333
Benzo(a)anthracene	ND		mg/kg	0.333
Chrysene	ND		mg/kg	0.333
Benzo(b)fluoranthene	ND		mg/kg	0.333
Benzo(k)fluoranthene	ND		mg/kg	0.333
Benzo(a)pyrene	ND		mg/kg	0.333
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.333
Dibenzo(a,h)anthracene	ND		mg/kg	0.333
Benzo(ghi)perylene	ND		mg/kg	0.333

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	45		40-140
o-Terphenyl	94		40-140
2-Fluorobiphenyl	91		40-140
2-Bromonaphthalene	93		40-140

Method Blank Analysis
Batch Quality Control

Analytical Method 59,VPH-04-1.1
Analytical Date: 06/15/09 10:53
Analyst: RC

Parameter	Result	Qualifier	Units	RDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 08-09,11 Batch. WG366799-3				
C5-C8 Aliphatics	ND		mg/kg	2.67
C9-C12 Aliphatics	ND		mg/kg	2.67
C9-C10 Aromatics	ND		mg/kg	2.67
C5-C8 Aliphatics, Adjusted	ND		mg/kg	2.67
C9-C12 Aliphatics, Adjusted	ND		mg/kg	2.67
Benzene	ND		mg/kg	0.107
Toluene	ND		mg/kg	0.107
Ethylbenzene	ND		mg/kg	0.107
p/m-Xylene	ND		mg/kg	0.107
o-Xylene	ND		mg/kg	0.107
Methyl tert butyl ether	ND		mg/kg	0.053
Naphthalene	ND		mg/kg	0.533

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	95		70-130
2,5-Dibromotoluene-FID	95		70-130

Project Name: 515 SOMERVILLE AVE.
Project Number: 2315.03

Lab Number: L0907709
Report Date: 06/18/09

Method Blank Analysis
Batch Quality Control

Analytical Method: 59,VPH-04-1.1
Analytical Date: 06/17/09 12:32
Analyst: RC

Parameter	Result	Qualifier	Units	RDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 10 Batch: WG367183-3				
C5-C8 Aliphatics	ND		mg/kg	2.67
C9-C12 Aliphatics	ND		mg/kg	2.67
C9-C10 Aromatics	ND		mg/kg	2.67
C5-C8 Aliphatics, Adjusted	ND		mg/kg	2.67
C9-C12 Aliphatics, Adjusted	ND		mg/kg	2.67
Benzene	ND		mg/kg	0.107
Toluene	ND		mg/kg	0.107
Ethylbenzene	ND		mg/kg	0.107
p/m-Xylene	ND		mg/kg	0.107
o-Xylene	ND		mg/kg	0.107
Methyl tert butyl ether	ND		mg/kg	0.053
Naphthalene	ND		mg/kg	0.533

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	98		70-130
2,5-Dibromotoluene-FID	100		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 515 SOMERVILLE AVE.
Project Number: 2315.03

Lab Number: L0907709
Report Date: 06/18/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01-07 Batch: WG366555-1 WG366555-2					
C5-C8 Aliphatics	81	83	70-130	2	25
C9-C12 Aliphatics	91	91	70-130	0	25
C9-C10 Aromatics	92	92	70-130	1	25
Benzene	86	86	70-130	0	25
Toluene	89	88	70-130	1	25
Ethylbenzene	91	89	70-130	1	25
p/m-Xylene	91	90	70-130	2	25
o-Xylene	90	89	70-130	2	25
Methyl tert butyl ether	80	80	70-130	0	25
Naphthalene	95	91	70-130	5	25
1,2,4-Trimethylbenzene	92	91	70-130	2	25
Pentane	75	74	70-130	1	25
2-Methylpentane	82	80	70-130	3	25
2,2,4-Trimethylpentane	96	96	70-130	2	25
n-Nonene	105	104	30-130	1	25
n-Decane	106	105	70-130	1	25
n-Butylcyclohexane	104	104	70-130	0	25

Lab Control Sample Analysis
Batch Quality Control

Project Name: 515 SOMERVILLE AVE.
Project Number: 2315.03

Lab Number: L0907709
Report Date: 06/18/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01-07 Batch: WG366555-1 WG366555-2					

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	95		92		70-130
2,5-Dibromotoluene-FID	97		96		70-130

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01-11 Batch: WG366739-2 WG366739-3					
C9-C18 Aliphatics	44	50	40-140	13	25
C19-C36 Aliphatics	62	65	40-140	5	25
C11-C22 Aromatics	78	80	40-140	3	25
Naphthalene	55	68	40-140	21	25
2 Methylnaphthalene	60	72	40-140	18	25
Acenaphthylene	64	74	40-140	14	25
Acenaphthene	62	71	40-140	14	25
Fluorene	67	75	40-140	11	25
Phenanthrene	82	86	40-140	5	25

Lab Control Sample Analysis
Batch Quality Control

Project Name: 515 SOMERVILLE AVE.
Project Number: 2315.03

Lab Number: L0907709
Report Date: 06/18/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01-11 Batch: WG366739-2 WG366739-3					
Anthracene	82	84	40-140	2	25
Fluoranthene	87	86	40-140	1	25
Pyrene	88	86	40-140	2	25
Benzo(a)anthracene	87	84	40-140	4	25
Chrysene	87	84	40-140	4	25
Benzo(b)fluoranthene	84	82	40-140	2	25
Benzo(k)fluoranthene	84	82	40-140	2	25
Benzo(a)pyrene	83	80	40-140	4	25
Indeno(1,2,3-cd)Pyrene	82	80	40-140	2	25
Dibenzo(a,h)anthracene	80	79	40-140	1	25
Benzo(ghi)perylene	81	78	40-140	4	25
Nonane (C9)	32	42	30-140	27	25
Decane (C10)	40	49	40-140	20	25
Dodecane (C12)	45	52	40-140	14	25
Tetradecane (C14)	48	53	40-140	10	25
Hexadecane (C16)	50	56	40-140	11	25
Octadecane (C18)	56	60	40-140	7	25
Nonadecane (C19)	80	83	40-140	5	25
Eicosane (C20)	83	86	40-140	3	25
Docosane (C22)	67	69	40-140	3	25
Tetracosane (C24)	69	71	40-140	3	25

Lab Control Sample Analysis
Batch Quality Control

Project Name: 515 SOMERVILLE AVE
Project Number: 2315 03
Lab Number: L0907709
Report Date: 06/18/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 08-09,11 Batch WG366799-1 WG366799-2					

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	103		101		70-130
2,5-Dibromotoluene-FID	104		102		70-130

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 10 Batch: WG367183-1 WG367183-2					
C5-C8 Aliphatics	96	101	70-130	5	25
C9-C12 Aliphatics	84	89	70-130	6	25
C9-C10 Aromatics	95	97	70-130	3	25
Benzene	92	94	70-130	3	25
Toluene	91	94	70-130	3	25
Ethylbenzene	93	95	70-130	2	25
p/m-Xylene	94	95	70-130	2	25
o-Xylene	92	94	70-130	2	25
Methyl tert butyl ether	86	92	70-130	7	25

Lab Control Sample Analysis
Batch Quality Control

Project Name: 515 SOMERVILLE AVE
Project Number: 2315 03
Lab Number: L0907709
Report Date: 06/18/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 10 Batch. WG367183-1 WG367183-2					
Naphthalene	99	104	70-130	5	25
1,2,4 Trimethylbenzene	94	96	70-130	2	25
Pentane	104	96	70-130	8	25
2-Methylpentane	101	103	70-130	2	25
2,2,4 Trimethylpentane	102	106	70-130	4	25
n-Nonane	102	107	30-130	5	25
n-Decane	94	101	70-130	8	25
n-Butylcyclohexane	100	104	70-130	4	25

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	99		103		70-130
2,5-Dibromotoluene-FID	99		104		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 515 SOMERVILLE AVE.
Project Number: 2315.03
Lab Number: L0907709
Report Date: 06/18/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01-11 Batch: WG366739-2 WG366739-3					
Hexacosane (C26)	69	72	40-140	4	25
Octacosane (C28)	68	71	40-140	4	25
Triacontane (C30)	70	74	40-140	6	25
Hexatriacontane (C36)	72	77	40-140	7	25

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	75		76		40-140
o-Terphenyl	96		94		40-140
2-Fluorobiphenyl	87		87		40-140
2-Bromonaphthalene	90		89		40-140
% Naphthalene Breakthrough	0		0		
% 2-Methylnaphthalene Breakthrough	0		0		

Lab Control Sample Analysis
Batch Quality Control

Project Name: 515 SOMERVILLE AVE.
Project Number: 2315.03
Lab Number: L0907709
Report Date: 06/18/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 08-09,11 Batch: WG366799-1 WG366799-2					
C5-C8 Aliphatics	115	118	70-130	3	25
C9-C12 Aliphatics	95	98	70-130	3	25
C9-C10 Aromatics	100	100	70-130	0	25
Benzene	99	101	70-130	2	25
Toluene	98	100	70-130	2	25
Ethylbenzene	98	100	70-130	2	25
p/m-Xylene	99	100	70-130	1	25
o-Xylene	98	98	70-130	1	25
Methyl tert butyl ether	94	99	70-130	5	25
Naphthalene	101	101	70-130	0	25
1,2,4-Trimethylbenzene	99	100	70-130	1	25
Pentane	123	124	70-130	1	25
2-Methylpentane	116	119	70-130	3	25
2,2,4-Trimethylpentane	112	114	70-130	2	25
n-Nonane	111	114	30-130	3	25
n-Decane	108	112	70-130	4	25
n-Butylcyclohexane	109	111	70-130	2	25

Project Name: 515 SOMERVILLE AVE.
Project Number: 2315.03
Lab Number: L0907709
Report Date: 06/18/09

Fractionation Check Standard
Quality Control

Fractionation check standard for 200818205

Parameter	% Recovery	QC Criteria
C9-C18 Aliphetics	77	40-140
C19-C36 Aliphatics	76	40-140
C11-C22 Aromatics	86	40-140
Naphthalene	82	40-140
2-Methylnaphthalene	78	40-140
Acenaphthylene	76	40-140
Acenaphthene	80	40-140
Fluorene	79	40-140
Phenanthrene	78	40-140
Anthracene	82	40-140
Fluoranthene	84	40-140
Pyrene	84	40-140
Benzo(a)anthracene	82	40-140
Chrysene	88	40-140
Benzo(b)fluoranthene	81	40-140
Benzo(k)fluoranthene	97	40-140
Benzo(a)pyrene	78	40-140
Indeno(1,2,3-cd)Pyrene	76	40-140
Dibenzo(a,h)enthracene	83	40-140
Benzo(g,h,i)perylene	82	40-140
Nonane	72	30-140
Decane	77	40-140
Dodecane	80	40-140
Tetradecane	76	40-140
Hexadecane	78	40-140
Octadecane	76	40-140
Nonedecane	75	40-140
Eicosane	77	40-140
Docosane	79	40-140
Tetracosane	83	40-140
Hexacosane	78	40-140
Octacosane	77	40-140
Triacontane	76	40-140
Hexatriacontane	75	40-140
% Naphthalene Breakthrough	0	0-5
% 2-Methylnaphthelene Breakthrough	0	0-5

Project Name: 515 SOMERVILLE AVE.
Project Number: 2315.03
Lab Number: L0907709
Report Date: 06/18/09

Fractionation Check Standard
Quality Control

Fractionation check standard for 200818205

Surrogate	% Recovery	QC Criteria
Chloro-Octadecane	66	40-140
o-Terphenyl	83	40-140
2-Fluorobiphenyl	75	40-140
2-Bromonaphthalene	76	40-140

INORGANICS
&
MISCELLANEOUS

Project Name: 515 SOMERVILLE AVE.
Project Number: 2315.03
Lab Number: L0907709
Report Date: 06/18/09

SAMPLE RESULTS

Lab ID: L0907709-01
Client ID: SE GAS TANK1 SWALL
Sample Location: SOMERVILLE, MA
Matrix: Soil
Date Collected: 06/10/09 14:28
Date Received: 06/11/09
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab									
Solids, Total	82		%	0.10	1	-	06/12/09 15:50	30,2540G	SD

Project Name: 515 SOMERVILLE AVE.
Project Number: 2315.03

Lab Number: L0907709
Report Date: 06/18/09

SAMPLE RESULTS

Lab ID: L0907709-02
Client ID: SE GAS TANK1 BASE
Sample Location: SOMERVILLE, MA
Matrix: Soil

Date Collected: 06/10/09 14:43
Date Received: 06/11/09
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab									
Solids, Total	82		%	0.10	1	-	06/12/09 15:50	30,2540G	SD

Project Name: 515 SOMERVILLE AVE.
Project Number: 2315.03

Lab Number: L0907709
Report Date: 06/18/09

SAMPLE RESULTS

Lab ID: L0907709-03
Client ID: SE GAS TANK1 EWALL
Sample Location: SOMERVILLE, MA
Matrix: Soil

Date Collected: 08/10/09 14:25
Date Received: 06/11/09
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab									
Solids, Total	79		%	0.10	1	-	06/12/09 15:50	30,2540G	SD

Project Name: 515 SOMERVILLE AVE.
Project Number: 2315.03

Lab Number: L0907709
Report Date: 06/18/09

SAMPLE RESULTS

Lab ID: L0907709-04
Client ID: SE GAS TANK1 WWALL
Sample Location: SOMERVILLE, MA
Matrix: Soil

Date Collected: 06/10/09 14:36
Date Received: 06/11/09
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab									
Solids, Total	82		%	0.10	1	-	06/12/09 15:50	30,2540G	SD

Project Name: 515 SOMERVILLE AVE.
Project Number: 2315.03

Lab Number: L0907709
Report Date: 06/18/09

SAMPLE RESULTS

Lab ID: L0907709-05
Client ID: SE GAS TANK1 NWALL
Sample Location: SOMERVILLE, MA
Matrix: Soil

Date Collected: 06/10/09 14:40
Date Received: 06/11/09
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab									
Solids, Total	88		%	0.10	1		06/12/09 15:50	30,2540G	SD

Project Name: 515 SOMERVILLE AVE.
Project Number: 2315.03
Lab Number: L0907709
Report Date: 06/18/09

SAMPLE RESULTS

Lab ID: L0907709-06
Client ID: SW GAS TANK2 SWALL
Sample Location: SOMERVILLE, MA
Matrix: Soil

Date Collected: 06/10/09 15:30
Date Received: 06/11/09
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab									
Solids, Total	88		%	0.10	1	-	06/12/09 15:50	30,2540G	SD

Project Name: 515 SOMERVILLE AVE.
Project Number: 2315.03
Lab Number: L0907709
Report Date: 06/18/09

SAMPLE RESULTS

Lab ID: L0907709-07
Client ID: SW GAS TANK2 BASE
Sample Location: SOMERVILLE, MA
Matrix: Soil

Date Collected: 06/10/09 15:10
Date Received: 06/11/09
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab									
Solids, Total	91		%	0.10	1	-	06/12/09 15:50	30,2540G	SD

Project Name: 515 SOMERVILLE AVE.
Project Number: 2315.03
Lab Number: L0907709
Report Date: 06/18/09

SAMPLE RESULTS

Lab ID: L0907709-08
Client ID: SW GAS TANK2 NWALL
Sample Location: SOMERVILLE, MA
Matrix: Soil

Date Collected: 06/10/09 15:20
Date Received: 06/11/09
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab									
Solids, Total	83		%	0.10	1	-	06/12/09 15:50	30,2540G	SD

Project Name: 515 SOMERVILLE AVE.
Project Number: 2315.03
Lab Number: L0907709
Report Date: 06/18/09

SAMPLE RESULTS

Lab ID: L0907709-09
Client ID: SW GAS TANK2 EWALL
Sample Location: SOMERVILLE, MA
Matrix: Soil

Date Collected: 06/10/09 15:15
Date Received: 06/11/09
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab									
Solids, Total	85		%	0.10	1	-	06/12/09 15:50	30,2540G	SD

Project Name: 515 SOMERVILLE AVE
Project Number: 2315.03
Lab Number: L0907709
Report Date: 06/18/09

SAMPLE RESULTS

Lab ID: L0907709-10
Client ID: SW GAS TANK2 WWALL
Sample Location: SOMERVILLE, MA
Matrix: Soil
Date Collected: 06/10/09 15:35
Date Received: 06/11/09
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab									
Solids, Total	84		%	0.10	1	-	06/12/09 15:50	30,2540G	SD

Project Name: 515 SOMERVILLE AVE.
Project Number: 2315.03
Lab Number: L0907709
Report Date: 06/18/09

SAMPLE RESULTS

Lab ID: L0907709-11
Client ID: WEST GT BASE
Sample Location: SOMERVILLE, MA
Matrix: Soil
Date Collected: 06/10/09 13:04
Date Received: 06/11/09
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab									
Solids, Total	92		%	0.10	1	-	06/12/09 15:50	30,2540G	SD

Project Name: 515 SOMERVILLE AVE
Project Number: 2315.03
Lab Number: L0907709
Report Date: 06/18/09

Lab Duplicate Analysis
Batch Quality Control

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-11 QC Batch ID: WG366848-1 QC Sample: L0907709-01 Client ID: SE GAS TANK1 SWALL					
Solids, Total	82	82	%	0	20

Project Name: 515 SOMERVILLE AVE.
Project Number: 2315.03
Lab Number: L0907709
Report Date: 06/18/09

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0907709-01A	Amber 120ml unpreserved	A	N/A	4.4	Y	Absent	VPH-DELUX-04(28)
L0907709-01B	Amber 120ml unpreserved	A	N/A	4.4	Y	Absent	EPH-DELUX-04(14),TS(7)
L0907709-02A	Amber 120ml unpreserved	A	N/A	4.4	Y	Absent	VPH-DELUX-04(28)
L0907709-02B	Amber 120ml unpreserved	A	N/A	4.4	Y	Absent	EPH-DELUX-04(14),TS(7)
L0907709-03A	Amber 120ml unpreserved	A	N/A	4.4	Y	Absent	VPH-DELUX-04(28)
L0907709-03B	Amber 120ml unpreserved	A	N/A	4.4	Y	Absent	EPH-DELUX-04(14),TS(7)
L0907709-04A	Amber 120ml unpreserved	A	N/A	4.4	Y	Absent	VPH-DELUX-04(28)
L0907709-04B	Amber 120ml unpreserved	A	N/A	4.4	Y	Absent	EPH-DELUX-04(14),TS(7)
L0907709-05A	Amber 120ml unpreserved	A	N/A	4.4	Y	Absent	VPH-DELUX-04(28)
L0907709-05B	Amber 120ml unpreserved	A	N/A	4.4	Y	Absent	EPH-DELUX-04(14),TS(7)
L0907709-06A	Amber 120ml unpreserved	A	N/A	4.4	Y	Absent	VPH-DELUX-04(28)
L0907709-06B	Amber 120ml unpreserved	A	N/A	4.4	Y	Absent	EPH-DELUX-04(14),TS(7)
L0907709-07A	Amber 120ml unpreserved	A	N/A	4.4	Y	Absent	VPH-DELUX-04(28)
L0907709-07B	Amber 120ml unpreserved	A	N/A	4.4	Y	Absent	EPH-DELUX-04(14),TS(7)
L0907709-08A	Amber 120ml unpreserved	A	N/A	4.4	Y	Absent	VPH-DELUX-04(28)
L0907709-08B	Amber 120ml unpreserved	A	N/A	4.4	Y	Absent	EPH-DELUX-04(14),TS(7)
L0907709-09A	Amber 120ml unpreserved	A	N/A	4.4	Y	Absent	VPH-DELUX-04(28)
L0907709-09B	Amber 120ml unpreserved	A	N/A	4.4	Y	Absent	EPH-DELUX-04(14),TS(7)
L0907709-10A	Amber 120ml unpreserved	A	N/A	4.4	Y	Absent	VPH-DELUX-04(28)
L0907709-10B	Amber 120ml unpreserved	A	N/A	4.4	Y	Absent	EPH-DELUX-04(14),TS(7)
L0907709-11A	Amber 120ml unpreserved	A	N/A	4.4	Y	Absent	VPH-DELUX-04(28)
L0907709-11B	Amber 120ml unpreserved	A	N/A	4.4	Y	Absent	EPH-DELUX-04(14),TS(7)

*Hold days indicated by values in parentheses

GLOSSARY

Acronyms

EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
ND	- Not detected at the reported detection limit for the sample.
NI	- Not Ignitable.
RDL	- Reported Detection Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

*	- The batch duplicate RPD exceeds the acceptance criteria. This flag is not applicable when the sample concentrations are less than 5x the RDL. (Metals only.)
A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
N	- The matrix spike recovery exceeds the acceptance criteria. This flag is not applicable when the sample concentration is greater than 4x the spike added. (Metals only.)
P	- The RPD between the results for the two columns exceeds the method-specified criteria.
R	- Analytical results are from sample re-analysis.
RE	- Analytical results are from sample re-extraction.
J	- Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

REFERENCES

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition, 1992.

59 Method for the Determination of Volatile Petroleum Hydrocarbons (VPH). Massachusetts Department of Environmental Protection, DEA/ORS/BWSC. May 2004, Revision 1.1.

61 Method for the Determination of Extractable Petroleum Hydrocarbons (EPH). Massachusetts Department of Environmental Protection, DEA/ORS/BWSC. May 2004, Revision 1.1.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Woods Hole Labs shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Woods Hole Labs.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised June 17, 2009 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Haloacetic Acids, Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB).)
Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Calcium Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BDD, CBDD, COD, TDC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)
Solid Waste/Soil (Inorganic Parameters: Lead in Paint, pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), Reactivity. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024
Drinking Water (Inorganic Parameters: SM9215B, 9221E, 9222B, 9222D, 9223B, EPA 150.1, 180.1, 300.0, 353.2, SM2130B, 2320B, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B,4500NO3-F, EPA 200.7, EPA 200.8, 245.1. Organic Parameters: 504.1, 524.2, SM 6251B.)
Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, Lachat 10-107-06-1-B, SM2320B, 2340B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B.5, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
Drinking Water
Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl)
(EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Nitrite-N, Fluoride, Sulfate)
353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, EPA 150.1, SM4500H-B
Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics)
(504 1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), SM8251B, 314.0.

Non-Potable Water
Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn)
(EPA 200.7 for: Al,Sb,As,Be,Cd,Cr,Co.Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Ti,Tl,V,Zn,Ca,Mg,Na,K)
245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2540B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Nitrate-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-B,C-Titr, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CN-CE, 2540D, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1
Organic Parameters. (EPA 624 for Volatile Halocarbons, Volatile Aromatics)
(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCB-Water)
600/4-81-045-PCB-Oil

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
Drinking Water
Microbiology Parameters: SM9215B; MF-SM9222B; ENZ. SUB. SM9223; EC-SM9221E; MF-SM9222D; ENZ. SUB. SM9223;

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 110.2, 120.1, 150.1, 300.0, 325.2, 314.0, SM4500CN-E, 4500H+B, 4500ND3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. Organic Parameters: 504.1, 524.2, SM6251B.)
Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 150.1, 300.0, 305.1, 310.1, 325.2, 340.2, 350.1, 350.2, 351.1, 353.2, 354.1, 365.2, 375.4, 376.2, 405.1, 415.1, 420.1, 425.1, 1684A, SW-846 9010, 9030, 9040B, EPA 160.1, 160.2, 160.3, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH3-H, 4500NH3-E, 4500ND2-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)
Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. Organic Parameters: SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500ND3-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, 331.0, 110.2, SM2120B, 2510B, 5310C, EPA 150.1, SM4500H-B, EPA 200.8, 245.2. Organic Parameters: 504.1, SM6251B, 524.2.)
Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.1, SM5220D, 4500Cl-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.2/.1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330, NJ OOA-QAM-025 Rev.7.)
Solid & Chemical Materials (Inorganic Parameters: SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. Organic Parameters: SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 1312, 3540C, 3545, 3550B, 3580A, 5035L, 5035H, NJ OOA-QAM-025 Rev.7.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 8215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 314.0, 331.0, SM2320B, EPA 300.0, 325.2, 110.2, SM2120B, 4500CN-E, 4500F-C, EPA 150.1, SM4500H-B, 4500NO3-F, 2540C, EPA 120.1, SM 2510B. Organic Parameters: EPA 524.2, 504 1, SM6251B)
Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, EPA 405 1, SM5210B, EPA 410.4, SM5220D, EPA 305.1, SM2310B-4a, EPA 310.1, SM2320B, EPA 200.7, 300.0, 325.2, LACHAT 10-117-07-1A or B, SM4500Cl-E, EPA 340.2, SM4500F-C, EPA 375.4, SM15 426C, EPA 350.1, 350.2, LACHAT 10-107-06-1-B, SM4500NH3-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO30F, EPA 354.1, SM4500-NO2-B, EPA 365.2, SM4500P-E, EPA 160.3, EPA 160.1, SM2540C, EPA 160.2, SM2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, S\M3500Cr-D, EPA 245.1, 245.2, 7470A, 110.2, SM2120B, 335 2, LACHAT 10-204-00-1-A, EPA 150.1, 9040B, SM4500-HB, EPA 1664A, EPA 415.1, SM5310C, EPA 420.1, SM14 510C, EPA 120 1, SM2510B, EPA 376.2, SM4500S-D, EPA 425.1, SM5540C, EPA 3005A, 3015. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, 8021B, EPA 3510C, 5030B, 9010B, 9030B.)
Solid & Hazardous Waste (Inorganic Parameters: EPA 9040B, 9045C, 1010, 1030, SW-846 Ch 7 Sec 7 3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 3005A, 3050B, 3051, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8081A, 8151A. 8330, 8082, 8021B, 3540C, 3545, 3580, 5030B, 5035.)
Analytical Services Protocol: CLP Volatile Organics, CLP Inorganics, CLP PCB/Pesticides

Rhode Island Department of Health Certificate/Lab ID: LAO00065 ***NELAP Accredited via NY-DOH.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water
Refer to NY-DOH Certificate for Potable and Non-Potable Water.

Pennsylvania Department of Environmental Protection Certificate/Lab ID: 68-03671. ***NELAP Accredited.***
Non-Potable Water (Organic Parameters: EPA 3510C, 625, 608, 8081A, 8082, 8151A, 8270C, 8330)
Solid & Hazardous Waste (Inorganic Parameters: EPA 1010, 1030, 1311, 3050B, 3051, 6010B, EPA 7.3.3.2, EPA 7.3.4.2, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065. Organic Parameters: 3540C, 3545, 3580A, 5035, 8021B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

CHAIN OF CUSTODY

PAGE 1 OF 2

Date Rec'd in Lab: 06/11/09

ALPHA Job #: L0907709

WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: Sanborn, Head + Assoc
Address: 1 Technology Park Dr. Westford, MA 01886
Phone: 978-392-0900
Fax: 978-392-0987
Email: dwood@sanbornhead.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: 515 Somerville Ave
Project Location: Somerville MA
Project #: 2315.03
Project Manager: Duncan Wood
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 06/18/09 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #

Regulatory Requirements/Report Limits

State/Fed Program: MCP
Criteria: GW-1

MA MCP PRESUMPTIVE CERTAINTY — CT REASONABLE CONFIDENCE PROTOCOLS

☑ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☑ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

SAMPLE HANDLING

Filtration
☐ Done
☑ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	EPH	VPH	Sample Specific Comments	
7709 1	SE Gas Tank 1 S Wall	6/10/09	1428	S	SAW	X	X		2
2	SE Gas Tank 1 Base	6/10/09	1413	S	SAW	X	X		2
3	SE Gas Tank 1 E Wall	6/10/09	1425	S	SAW	X	X		2
4	SE Gas Tank 1 W Wall	6/10/09	1436	S	SAW	X	X		2
5	SE Gas Tank 1 N Wall	6/10/09	1440	S	SAW	X	X		2
6	SW Gas Tank 2 S Wall	6/10/09	1530	S	SAW	X	X		2
7	SW Gas Tank 2 Base	6/10/09	1510	S	SAW	X	X		2
8	SW Gas Tank 2 N Wall	6/10/09	1520	S	SAW	X	X		2
9	SW Gas Tank 2 E Wall	6/10/09	1513	S	SAW	X	X		2
10	SW Gas Tank 2 W Wall	6/10/09	1535	S	SAW	X	X		2
					Container Type	A	AV		
					Preservative	A	F		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By	Date/Time	Received By	Date/Time
SA Whitcomb	6/10/09 1255		6/11/09 1255
	6/11/09 17:15		6/11/09 17:15

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 14-OCT-07)

CHAIN OF CUSTODY

PAGE 2 OF 2

Date Rec'd in Lab: 06/11/09

ALPHA Job #: L0907709

WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
RAYNHAM, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: Sanborn, Head & Assoc
Address: 1 Technology Park Dr. Westford, MA 01886
Phone: 978-392-0900
Fax: 978-392-0987
Email: dwood@sanbornhead.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: 515 Somerville Ave
Project Location: Somerville MA
Project #: 2315.03
Project Manager: Duncan Wood
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 06/18/09 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #

Regulatory Requirements/Report Limits

State/Fed Program: MCP
Criteria: GW-1

MA MCP PRESUMPTIVE CERTAINTY — CT REASONABLE CONFIDENCE PROTOCOLS

☒ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

SAMPLE HANDLING

Filtration
☐ Done
☒ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	EPH	VPH	Sample Specific Comments	
11	West GT Base	6/10/09	13:04	S	SAW	X	X		2
	~~Trip~~ Blank								1
					Container Type	A	AV		
					Preservative	A	F		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By	Date/Time	Received By	Date/Time
SA Whitcomb	6/10/09 12:55		6/11/09 1255
	6/11/09 17:15		6/11/09 17:15

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 10-OCT-05)

ALPHA ANALYTICAL

ANALYTICAL REPORT

Lab Number:	L0907777
Client:	Sanborn, Head & Associates, Inc 1 Technology Park Drive Westford, MA 01886
ATTN:	Duncan Wood
Project Name:	515 SOMERVILLE AVE
Project Number:	2315.03
Report Date:	06/22/09

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L0907777-01	NORTH TANK SOLIDS	SOMERVILLE, MA	06/12/09 13:55
L0907777-02	SOUTHERN GAS TANK SOLIDS	SOMERVILLE, MA	06/12/09 13:35

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

	An affirmative response to questions A, B, C & D is required for "Presumptive Certainty" status	
A	Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B	Were all QA/QC procedures required for the specified analytical methods(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D	VPH and EPH methods only: Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	N/A

	A response to questions E and F is required for "Presumptive Certainty" status	
E	Were all QC performance standards and recommendations for the specified method(s) achieved?	NO
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?	NO

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited perameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

For additional information, please contact Client Services at 800-624-9220.

MCP Related Narratives

Volatile Organics

L0907777-01 has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

In reference to question E:

The WG367369-1/-2 LCS/LCSD recoveries associated with L0907777-01 and -02 are outside the acceptance criteria for several compounds; however, they have been identified as "difficult" analytes. The results of the associated samples are reported, however, all results are considered to have a potentially high bias for

---

Case Narrative (continued)

Bromomethane (LCS at 134%) and a potentially low bias for Dichlorodifluoromethane (66%/64%).

Metals

In reference to question F:

All samples were analyzed for a subset of MCP elements per the Chain of Custody.

Mercury

L0907777-01 was re-analyzed on a dilution for Mercury in order to quantitate the sample within the calibration range. The result should be considered estimated, and is qualified with an E flag, for the compound that exceeded the calibration on the initial analysis. The re-analysis was performed only for the compound that exceeded the calibration range.

Non-MCP Related Narratives

Petroleum Hydrocarbons

L0907777-01 has elevated detection limits due to the dilution required by the matrix interferences encountered during the concentration of the sample and the dilution required by the elevated concentrations of target compounds in the sample.

The surrogate recovery for L0907777-01 was below the acceptance criteria for o-Terphenyl (0%) due to the dilutions required to quantitate the sample. Re-extraction is not required; therefore, the results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Elizabeth A. Simmons

Title: Technical Director/Representative Date: 06/22/09

ORGANICS

VOLATILES

Project Name: 515 SOMERVILLE AVE
Lab Number: L0907777
Project Number: 2315.03
Report Date: 06/22/09

SAMPLE RESULTS

Lab ID: L0907777-01
Client ID: NORTH TANK SOLIDS
Sample Location: SOMERVILLE, MA
Matrix: Soil
Analytical Method: 60,8260B
Analytical Date: 06/18/09 09.47
Analyst: BN
Percent Solids: 63%
Date Collected: 06/12/09 13:55
Date Received: 06/12/09
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
MCP Volatile Organics by 8260B/5035 - Westborough Lab					
Methylene chloride	ND		ug/kg	740000	500
1,1-Dichloroethane	ND		ug/kg	110000	500
Chloroform	ND		ug/kg	110000	500
Carbon tetrachloride	ND		ug/kg	74000	500
1,2-Dichloropropane	ND		ug/kg	260000	500
Dibromochloromethane	ND		ug/kg	74000	500
1,1,2-Trichloroethane	ND		ug/kg	110000	500
Tetrachloroethene	ND		ug/kg	74000	500
Chlorobenzene	ND		ug/kg	74000	500
Trichlorofluoromethane	ND		ug/kg	370000	500
1,2-Dichloroethane	ND		ug/kg	74000	500
1,1,1-Trichloroethane	ND		ug/kg	74000	500
Bromodichloromethane	ND		ug/kg	74000	500
trans-1,3-Dichloropropene	ND		ug/kg	74000	500
cis-1,3-Dichloropropene	ND		ug/kg	74000	500
1,1-Dichloropropene	ND		ug/kg	370000	500
Bromoform	ND		ug/kg	300000	500
1,1,2,2-Tetrachloroethane	ND		ug/kg	74000	500
Benzene	ND		ug/kg	74000	500
Toluene	ND		ug/kg	110000	500
Ethylbenzene	130000		ug/kg	74000	500
Chloromethane	ND		ug/kg	370000	500
Bromomethane	ND		ug/kg	150000	500
Vinyl chloride	ND		ug/kg	150000	500
Chloroethane	ND		ug/kg	150000	500
1,1-Dichloroethene	ND		ug/kg	74000	500
trans-1,2-Dichloroethene	ND		ug/kg	110000	500
Trichloroethene	ND		ug/kg	74000	500
1,2-Dichlorobenzene	ND		ug/kg	370000	500
1,3-Dichlorobenzene	ND		ug/kg	370000	500

Project Name: 515 SOMERVILLE AVE
Lab Number: L0907777
Project Number: 2315.03
Report Date: 06/22/09

SAMPLE RESULTS

Lab ID: L0907777-01
Client ID: NORTH TANK SOLIDS
Sample Location: SOMERVILLE, MA
Date Collected: 06/12/09 13 55
Date Received: 06/12/09
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
MCP Volatile Organics by 8260B/5035 - Westborough Lab					
1,4-Dichlorobenzene	ND		ug/kg	370000	500
Methyl tert butyl ether	ND		ug/kg	150000	500
p/m-Xylene	880000		ug/kg	150000	500
o-Xylene	580000		ug/kg	150000	500
cis-1,2-Dichloroethene	ND		ug/kg	74000	500
Dibromomethane	ND		ug/kg	740000	500
1,2,3-Trichloropropane	ND		ug/kg	740000	500
Styrene	ND		ug/kg	150000	500
Dichlorodifluoromethane	ND		ug/kg	740000	500
Acetone	ND		ug/kg	740000	500
Carbon disulfide	ND		ug/kg	3700000	500
2-Butanone	ND		ug/kg	740000	500
4-Methyl-2-pentanone	ND		ug/kg	740000	500
2-Hexanone	ND		ug/kg	740000	500
Bromochloromethane	ND		ug/kg	370000	500
Tetrahydrofuran	ND		ug/kg	1500000	500
2,2-Dichloropropane	ND		ug/kg	370000	500
1,2-Dibromoethane	ND		ug/kg	300000	500
1,3-Dichloropropane	ND		ug/kg	370000	500
1,1,1,2-Tetrachloroethane	ND		ug/kg	74000	500
Bromobenzene	ND		ug/kg	370000	500
n-Butylbenzene	440000		ug/kg	74000	500
sec-Butylbenzene	290000		ug/kg	74000	500
tert-Butylbenzene	ND		ug/kg	370000	500
o-Chlorotoluene	ND		ug/kg	370000	500
p-Chlorotoluene	ND		ug/kg	370000	500
1,2-Dibromo-3-chloropropane	ND		ug/kg	370000	500
Hexachlorobutadiene	ND		ug/kg	370000	500
Isopropylbenzene	160000		ug/kg	74000	500
p-Isopropyltoluene	360000		ug/kg	74000	500
Naphthalene	ND		ug/kg	370000	500
n-Propylbenzene	510000		ug/kg	74000	500
1,2,3-Trichlorobenzene	ND		ug/kg	370000	500
1,2,4-Trichlorobenzene	ND		ug/kg	370000	500
1,3,5-Trimethylbenzene	1800000		ug/kg	370000	500
1,2,4-Trimethylbenzene	5100000		ug/kg	370000	500
Ethyl ether	ND		ug/kg	370000	500

SAMPLE RESULTS

Lab ID: L0907777-01 Date Collected: 06/12/09 13:55
Client ID: NORTH TANK SOLIDS Date Received: 06/12/09
Sample Location: SOMERVILLE, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
MCP Volatile Organics by 8260B/5035 - Westborough Lab					
Isopropyl Ether	ND		ug/kg	300000	500
Ethyl-Tert-Butyl-Ether	ND		ug/kg	300000	500
Tertiary-Amyl Methyl Ether	ND		ug/kg	300000	500
1,4-Dioxane	ND		ug/kg	3700000(	500

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	89		70-130

SAMPLE RESULTS

Lab ID: L0907777-02 Date Collected: 06/12/09 13:35
Client ID: SOUTHERN GAS TANK SOLIDS Date Received: 06/12/09
Sample Location: SOMERVILLE, MA Field Prep: Not Specified
Matrix: Soil
Analytical Method: 60,8260B
Analytical Date: 06/18/09 10:22
Analyst: BN
Percent Solids: 92%

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
MCP Volatile Organics by 8260B/5035 - Westborough Lab					
Methylene chloride	ND		ug/kg	680	1
1,1-Dichloroethane	ND		ug/kg	100	1
Chloroform	ND		ug/kg	100	1
Carbon tetrachloride	ND		ug/kg	68	1
1,2-Dichloropropane	ND		ug/kg	240	1
Dibromochloromethane	ND		ug/kg	68	1
1,1,2-Trichloroethane	ND		ug/kg	100	1
Tetrachloroethene	ND		ug/kg	68	1
Chlorobenzene	ND		ug/kg	68	1
Trichlorofluoromethane	ND		ug/kg	340	1
1,2-Dichloroethane	140		ug/kg	68	1
1,1,1-Trichloroethane	ND		ug/kg	68	1
Bromodichloromethane	ND		ug/kg	68	1
trans-1,3-Dichloropropene	ND		ug/kg	68	1
cis-1,3-Dichloropropene	ND		ug/kg	68	1
1,1-Dichloropropene	ND		ug/kg	340	1
Bromoform	ND		ug/kg	270	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	68	1
Benzene	1200		ug/kg	68	1
Toluene	5600		ug/kg	100	1
Ethylbenzene	1500		ug/kg	68	1
Chloromethane	ND		ug/kg	340	1
Bromomethane	ND		ug/kg	140	1
Vinyl chloride	ND		ug/kg	140	1
Chloroethane	ND		ug/kg	140	1
1,1-Dichloroethene	ND		ug/kg	68	1
trans-1,2-Dichloroethene	ND		ug/kg	100	1
Trichloroethene	ND		ug/kg	68	1
1,2-Dichlorobenzene	ND		ug/kg	340	1
1,3-Dichlorobenzene	ND		ug/kg	340	1

SAMPLE RESULTS

Lab ID: L0907777-02 Date Collected: 06/12/09 13:35
Client ID: SOUTHERN GAS TANK SOLIDS Date Received: 06/12/09
Sample Location: SOMERVILLE, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
MCP Volatile Organics by 8260B/5035 - Westborough Lab					
1,4-Dichlorobenzene	ND		ug/kg	340	1
Methyl tert butyl ether	ND		ug/kg	140	1
p/m-Xylene	6200		ug/kg	140	1
o-Xylene	2600		ug/kg	140	1
cis-1,2-Dichloroethene	ND		ug/kg	68	1
Dibromomethane	ND		ug/kg	680	1
1,2,3-Trichloropropane	ND		ug/kg	680	1
Styrene	ND		ug/kg	140	1
Dichlorodifluoromethane	ND		ug/kg	680	1
Acetone	ND		ug/kg	680	1
Carbon disulfide	ND		ug/kg	3400	1
2-Butanone	ND		ug/kg	680	1
4-Methyl-2-pentanone	ND		ug/kg	680	1
2-Hexanone	ND		ug/kg	680	1
Bromochloromethane	ND		ug/kg	340	1
Tetrahydrofuran	ND		ug/kg	1400	1
2,2-Dichloropropane	ND		ug/kg	340	1
1,2-Dibromoethane	ND		ug/kg	270	1
1,3-Dichloropropane	ND		ug/kg	340	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	68	1
Bromobenzene	ND		ug/kg	340	1
n-Butylbenzene	320		ug/kg	68	1
sec-Butylbenzene	99		ug/kg	68	1
tert-Butylbenzene	ND		ug/kg	340	1
o-Chlorotoluene	ND		ug/kg	340	1
p-Chlorotoluene	ND		ug/kg	340	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	340	1
Hexachlorobutadiene	ND		ug/kg	340	1
Isopropylbenzene	200		ug/kg	68	1
p-Isopropyltoluene	100		ug/kg	68	1
Naphthalene	780		ug/kg	340	1
n-Propylbenzene	440		ug/kg	68	1
1,2,3-Trichlorobenzene	ND		ug/kg	340	1
1,2,4-Trichlorobenzene	ND		ug/kg	340	1
1,3,5-Trimethylbenzene	1100		ug/kg	340	1
1,2,4-Trimethylbenzene	3000		ug/kg	340	1
Ethyl ether	ND		ug/kg	340	1

SAMPLE RESULTS

Lab ID: L0907777-02 Date Collected: 06/12/09 13:35
Client ID: SOUTHERN GAS TANK SOLIDS Date Received: 06/12/09
Sample Location: SOMERVILLE, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
MCP Volatile Organics by 8260B/5035 - Westborough Lab					
Isopropyl Ether	ND		ug/kg	270	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	270	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	270	1
1,4-Dioxane	ND		ug/kg	34000	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Toluene-d8	113		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	78		70-130

Project Name: 515 SOMERVILLE AVE
Project Number: 2315.03
Lab Number: L0907777
Report Date: 06/22/09

Method Blank Analysis
Batch Quality Control

Analytical Method 60,8260B
Analytical Date. 06/18/09 09 12
Analyst BN

Parameter	Reault	Qualifier	Unita	RDL
MCP Volatile Organics by 8260B/5035 - Westborough Lab for sample(s). 01-02 Batch: WG367369-3				
Methylene chloride	ND		ug/kg	500
1,1-Dichloroethane	ND		ug/kg	75
Chloroform	ND		ug/kg	75
Carbon tetrachloride	ND		ug/kg	50
1,2-Dichloropropane	ND		ug/kg	180
Dibromochloromethane	ND		ug/kg	50
1,1,2-Trichloroethane	ND		ug/kg	75
Tetrachloroethene	ND		ug/kg	50
Chlorobenzene	ND		ug/kg	50
Trichlorofluoromethane	ND		ug/kg	250
1,2-Dichloroethane	ND		ug/kg	50
1,1,1-Trichloroethane	ND		ug/kg	50
Bromodichloromethane	ND		ug/kg	50
trans-1,3-Dichloropropene	ND		ug/kg	50
cis-1,3-Dichloropropene	ND		ug/kg	50
1,1-Dichloropropene	ND		ug/kg	250
Bromoform	ND		ug/kg	200
1,1,2,2-Tetrachloroethane	ND		ug/kg	50
Benzene	ND		ug/kg	50
Toluene	ND		ug/kg	75
Ethylbenzene	ND		ug/kg	50
Chloromethane	ND		ug/kg	250
Bromomethane	ND		ug/kg	100
Vinyl chloride	ND		ug/kg	100
Chloroethane	ND		ug/kg	100
1,1-Dichloroethene	ND		ug/kg	50
trans-1,2-Dichloroethene	ND		ug/kg	75
Trichloroethene	ND		ug/kg	50
1,2-Dichlorobenzene	ND		ug/kg	250
1,3-Dichlorobenzene	ND		ug/kg	250
1,4 Dichlorobenzene	ND		ug/kg	250

Project Name: 515 SOMERVILLE AVE
Project Number: 2315 03
Lab Number: L0907777
Report Date: 06/22/09

Method Blank Analysis
Batch Quality Control

Analytical Method. 60,8260B
Analytical Date 06/18/09 09·12
Analyst. BN

Parameter	Result	Qualifier	Unita	RDL
MCP Volatile Organics by 8260B/5035 - Wastborough Lab for sampla(s): 01-02 Batch: WG367369-3				
Methyl tert butyl ether	ND		ug/kg	100
p/m-Xylene	ND		ug/kg	100
o-Xylene	ND		ug/kg	100
cis-1,2-Dichloroethene	ND		ug/kg	50
Dibromomethane	ND		ug/kg	500
1,2,3-Trichloropropane	ND		ug/kg	500
Styrene	ND		ug/kg	100
Dichlorodifluoromethane	ND		ug/kg	500
Acetone	ND		ug/kg	500
Carbon disulfide	ND		ug/kg	2500
2-Butanone	ND		ug/kg	500
4-Methyl-2-pentanone	ND		ug/kg	500
2-Hexanone	ND		ug/kg	500
Bromochloromethane	ND		ug/kg	250
Tetrahydrofuran	ND		ug/kg	1000
2,2-Dichloropropane	ND		ug/kg	250
1,2-Dibromoethane	ND		ug/kg	200
1,3-Dichloropropane	ND		ug/kg	250
1,1,1,2-Tetrachloroethane	ND		ug/kg	50
Bromobenzene	ND		ug/kg	250
n-Butylbenzene	ND		ug/kg	50
sec-Butylbenzene	ND		ug/kg	50
tert-Butylbenzene	ND		ug/kg	250
o-Chlorotoluene	ND		ug/kg	250
p-Chlorotoluene	ND		ug/kg	250
1,2-Dibromo-3-chloropropane	ND		ug/kg	250
Hexachlorobutadiene	ND		ug/kg	250
Isopropylbenzene	ND		ug/kg	50
p-Isopropyltoluene	ND		ug/kg	50
Naphthalene	ND		ug/kg	250
n-Propylbenzene	ND		ug/kg	50

Project Name: 515 SOMERVILLE AVE
Project Number: 2315.03
Lab Number: L0907777
Report Date: 06/22/09

Method Blank Analysis
Batch Quality Control

Analytical Method. 60,8260B
Analytical Date· 06/18/09 09 12
Analyst. BN

Parameter	Reault	Qualifier	Unita	RDL
MCP Volatile Organics by 8260B/5035 - Westborough Lab for sample(s): 01-02 Batch: WG387369-3				
1,2,3-Trichlorobenzene	ND		ug/kg	250
1,2,4-Trichlorobenzene	ND		ug/kg	250
1,3,5-Trimethylbenzene	ND		ug/kg	250
1,2,4-Trimethylbenzene	ND		ug/kg	250
Ethyl ether	ND		ug/kg	250
Isopropyl Ether	ND		ug/kg	200
Ethyl-Tert-Butyl-Ether	ND		ug/kg	200
Tertiary-Amyl Methyl Ether	ND		ug/kg	200
1,4-Dioxane	ND		ug/kg	25000

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	115		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	89		70-130

Project Name: 515 SOMERVILLE AVE
Project Number: 2315 03
Lab Number: L0907777
Report Date: 06/22/09

Lab Control Sample Analysis
Batch Quality Control

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limita
MCP Volatile Organics by 8260B/5035 - Westborough Lab Associated sample(s): 01-02 Batch: WG367369-1 WG367369-2					
Methylene chloride	76	75	70-130	1	25
1 1-Dichloroethane	87	86	70-130	1	25
Chloroform	85	82	70-130	4	25
Carbon tetrachloride	86	83	70-130	4	25
1,2-Dichloropropane	86	85	70-130	1	25
Dibromochloromethane	99	102	70-130	3	25
1,1,2-Trichloroethane	97	99	70-130	2	25
Tetrachloroethene	110	112	70-130	2	25
Chlorobenzene	104	104	70-130	0	25
Trichlorofluoromethane	88	84	70-130	5	25
1,2-Dichloroethane	90	87	70-130	3	25
1 1,1 Trichloroethane	85	85	70-130	0	25
Bromodichloromethane	87	86	70-130	1	25
trans 1,3 Dichloropropene	98	100	70-130	2	25
cis 1,3-Dichloropropene	75	75	70-130	0	25
1 1-Dichloropropene	85	85	70-130	0	25
Bromoform	116	108	70-130	7	50
1 1,2,2-Tetrachloroethane	112	105	70-130	6	25
Benzene	82	83	70-130	1	25
Toluene	102	102	70-130	0	25
Ethylbenzene	106	107	70-130	1	25

Lab Control Sample Analysis
Batch Quality Control

Project Name: 515 SOMERVILLE AVE
Project Number: 2315.03
Lab Number: L0907777
Report Date: 06/22/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics by 8260B/5035 - Westborough Lab Associated sample(s): 01-02 Batch: WG367369-1 WG367369-2					
Chloromethane	72	72	70-130	0	50
Bromomethane	134	125	70-130	7	50
Vinyl chloride	83	80	70-130	4	25
Chloroethane	91	88	70-130	3	25
1,1-Dichloroethene	80	74	70-130	8	25
trans-1,2-Dichloroethene	83	83	70-130	0	25
Trichloroethene	73	72	70-130	1	25
1,2-Dichlorobenzene	117	113	70-130	3	25
1,3-Dichlorobenzene	118	116	70-130	2	25
1,4-Dichlorobenzene	119	116	70-130	3	25
Methyl tert butyl ether	95	93	70-130	2	25
p/m-Xylene	110	112	70-130	2	25
o-Xylene	116	118	70-130	2	25
cis-1,2-Dichloroethene	87	88	70-130	1	25
Dibromomethane	86	82	70-130	5	25
1,2,3-Trichloropropane	126	116	70-130	8	25
Styrene	116	117	70-130	1	25
Dichlorodifluoromethane	66	64	70-130	3	50
Acetone	74	79	70-130	7	50
Carbon disulfide	75	73	70-130	3	50
2-Butanone	126	118	70-130	7	50

Lab Control Sample Analysis
Batch Quality Control

Project Name: 515 SOMERVILLE AVE
Project Number: 2315.03
Lab Number: L0907777
Report Date: 06/22/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics by 8260B/5035 - Westborough Lab Associated sample(s): 01-02 Batch: WG367369-1 WG367369-2					
4-Methyl-2-pentanone	95	91	70-130	4	50
2-Hexanone	108	102	70-130	8	50
Bromochloromethane	85	85	70-130	0	25
Tetrahydrofuran	92	91	70-130	1	25
2,2-Dichloropropane	91	91	70-130	0	50
1,2-Dibromoethane	106	103	70-130	3	25
1,3-Dichloropropane	101	101	70-130	0	25
1,1,1,2-Tetrachloroethane	105	108	70-130	3	25
Bromobenzene	117	114	70-130	3	25
n-Butylbenzene	115	112	70-130	3	25
sec-Butylbenzene	112	112	70-130	0	25
tert-Butylbenzene	114	114	70-130	0	25
o-Chlorotoluene	110	107	70-130	3	25
p-Chlorotoluene	112	108	70-130	4	25
1,2-Dibromo-3-chloropropane	107	102	70-130	5	50
Hexachlorobutadiene	121	117	70-130	3	25
Isopropylbenzene	113	110	70-130	3	25
p-Isopropyltoluene	119	118	70-130	1	25
Naphthalene	96	93	70-130	3	25
n-Propylbenzene	111	107	70-130	4	25
1,2,3-Trichlorobenzene	115	113	70-130	2	25

Lab Control Sample Analysis
Batch Quality Control

Project Name: 515 SOMERVILLE AVE
Project Number: 2315.03
Lab Number: L0907777
Report Date: 06/22/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics by 8260B/5035 - Westborough Lab Associated sample(s): 01-02 Batch: WG367369-1 WG367369-2					
1,2,4-Trichlorobenzene	115	115	70-130	0	25
1,3,5-Trimethylbenzene	113	114	70-130	1	25
1,2,4-Trimethylbenzene	116	112	70-130	4	25
Ethyl ether	92	89	70-130	3	25
Isopropyl Ether	91	91	70-130	0	25
Ethyl-Tert-Butyl-Ether	92	93	70-130	1	25
Tertiary-Amyl Methyl Ether	88	87	70-130	1	25
1,4-Dioxane	92	90	70-130	2	50

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		91		70-130
Toluene-d8	110		112		70-130
4-Bromofluorobenzene	102		100		70-130
Dibromofluoromethane	86		83		70-130

PETROLEUM HYDROCARBONS

06220915.20

Project Name: 515 SOMERVILLE AVE
Project Number: 2315 03

Lab Number: L0907777
Report Date: 06/22/09

SAMPLE RESULTS

Lab ID.	L0907777-01	Date Collected:	06/12/09 13:55
Client ID	NORTH TANK SOLIDS	Date Received:	06/12/09
Sample Location.	SOMERVILLE, MA	Field Prep:	Not Specified
Matrix	Soil	Extraction Method	EPA 3546
Analytical Method	1,8015B(M)	Extraction Date	06/15/09 12:00
Analytical Date	06/17/09 15:02		
Analyst	RT		
Percent Solids	63%		

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab					
TPH	39400000		ug/kg	5290000	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	0		40-140

06220915.20

Project Name: 515 SOMERVILLE AVE
Project Number: 2315.03

Lab Number: L0907777
Report Date: 06/22/09

SAMPLE RESULTS

Lab ID.	L0907777-02	Date Collected	06/12/09 13 35
Client ID	SOUTHERN GAS TANK SOLIDS	Date Received	06/12/09
Sample Location.	SOMERVILLE, MA	Field Prep.	Not Specified
Matrix.	Soil	Extraction Method	EPA 3546
Analytical Method	1,8015B(M)	Extraction Date	06/15/09 12:00
Analytical Date.	06/17/09 10.29		
Analyst:	RT		
Percent Solids.	92%		

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab					
TPH	361000		ug/kg	36200	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	91		40-140

06220915.20

Project Name: 515 SOMERVILLE AVE
Project Number: 2315.03

Lab Number: L0907777
Report Date: 06/22/09

Method Blank Analysis
Batch Quality Control

Analytical Method	1,8015B(M)	Extraction Method	EPA 3546
Analytical Date	06/15/09 14 50	Extraction Date	06/15/09 12:00
Analyst	RT		

Parameter	Result	Qualifier	Units	RDL
Petroleum Hydrocarbon Quantitation - Westborough Lab for sample(s): 01-02 Batch: WG366830-1				
TPH	ND		ug/kg	33300

Surrogate	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	89		40-140

06220915:20

Project Name. 515 SOMERVILLE AVE
Project Number: 2315 03

Lab Number: L0907777
Report Date: 06/22/09

Lab Control Sample Analysis
Batch Quality Control

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s). 01-02 Batch: WG366830-2					
TPH	64		40-140		

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
o Terphenyl	95				40-140

Project Name: 515 SOMERVILLE AVE
Project Number: 2315.03

Lab Number: L0907777
Report Date: 06/22/09

Lab Duplicate Analysis
Batch Quality Control

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG366830-4 QC Sample: L0907741-01 Client ID: DUP Sample					
TPH	ND	77800	ug/kg	NC	40

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	63		67		40-140

PCBS

Project Name: 515 SOMERVILLE AVE
Project Number: 2315.03

Lab Number: L0907777
Report Date: 06/22/09

SAMPLE RESULTS

Lab ID:	L0907777-01	Date Collected:	06/12/09 13:55
Client ID:	NORTH TANK SOLIDS	Date Received:	06/12/09
Sample Location:	SOMERVILLE, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method	64,8082	Extraction Date:	06/19/09 22:00
Analytical Date:	06/22/09 08:57	Cleanup Method1:	EPA 3665A
Analyst:	SH	Cleanup Date1.	06/20/09
Percent Solids:	63%		

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab					
Aroclor 1242	450		ug/kg	52 9	1
Aroclor 1254	525		ug/kg	52 9	1
Aroclor 1260	231		ug/kg	62.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	44		30-150	A
Decachlorobiphenyl	49		30-150	A
2,4,5,6-Tetrachloro-m-xylene	55		30-150	B
Decachlorobiphenyl	76		30-150	B

Project Name: 515 SOMERVILLE AVE
Project Number: 2315.03

Lab Number: L0907777
Report Date: 06/22/09

SAMPLE RESULTS

Lab ID:	L0907777-01	Date Collected:	06/12/09 13:55
Client ID:	NORTH TANK SOLIDS	Date Received:	06/12/09
Sample Location:	SOMERVILLE, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	64,8082	Extraction Date:	06/19/09 22:00
Analytical Date:	06/22/09 08:57	Cleanup Method1:	EPA 3665A
Analyst:	SH	Cleanup Date1:	06/20/09
Percent Solids:	63%		

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab					
Aroclor 1016	ND		ug/kg	52 9	1
Aroclor 1221	ND		ug/kg	52 9	1
Aroclor 1232	ND		ug/kg	52 9	1
Aroclor 1248	ND		ug/kg	52 9	1
Aroclor 1262	ND		ug/kg	52 9	1
Aroclor 1268	ND		ug/kg	52 9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4 5,6-Tetrachloro-m-xylene	44		30-150	A
Decachlorobiphenyl	49		30-150	A
2,4,5,6-Tetrachloro-m-xylene	55		30-150	B
Decachlorobiphenyl	76		30-150	B

Project Name:	515 SOMERVILLE AVE	**Lab Number:**	L0907777
Project Number:	2315.03	**Report Date:**	06/22/09

SAMPLE RESULTS

Lab ID	L0907777-02	Date Collected	06/12/09 13 35
Client ID:	SOUTHERN GAS TANK SOLIDS	Date Received:	06/12/09
Sample Location	SOMERVILLE, MA	Field Prep.	Not Specified
Matrix	Soil	Extraction Method	EPA 3546
Analytical Method	64,8082	Extraction Date.	06/15/09 15.33
Analytical Date	06/16/09 20:46	Cleanup Method1:	EPA 3665A
Analyst	SH	Cleanup Date1.	06/15/09
Percent Solids	92%		

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab					
Aroclor 1016	ND		ug/kg	36 2	1
Aroclor 1221	ND		ug/kg	36 2	1
Aroclor 1232	ND		ug/kg	36 2	1
Aroclor 1242	ND		ug/kg	36 2	1
Aroclor 1248	ND		ug/kg	36 2	1
Aroclor 1254	ND		ug/kg	36 2	1
Aroclor 1260	ND		ug/kg	36 2	1
Aroclor 1262	ND		ug/kg	36 2	1
Aroclor 1268	ND		ug/kg	36 2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		30-150	A
Decachlorobiphenyl	76		30-150	A
2,4,5,6-Tetrachloro-m-xylene	56		30-150	B
Decachlorobiphenyl	74		30-150	B

Project Name:	515 SOMERVILLE AVE	**Lab Number:**	L0907777
Project Number:	2315 03	**Report Date:**	06/22/09

Method Blank Analysis
Batch Quality Control

Analytical Method.	64,8082	Extraction Method	EPA 3546
Analytical Date	06/16/09 19:57	Extraction Date	06/15/09 15 33
Analyst.	SH	Cleanup Method1	EPA 3665A
		Cleanup Date1	06/15/09

Parameter	Result	Qualifier	Units	RDL
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 02 Batch: WG366888-1				
Aroclor 1016	ND		ug/kg	33 3
Aroclor 1221	ND		ug/kg	33 3
Aroclor 1232	ND		ug/kg	33 3
Aroclor 1242	ND		ug/kg	33 3
Aroclor 1248	ND		ug/kg	33 3
Aroclor 1254	ND		ug/kg	33 3
Aroclor 1260	ND		ug/kg	33 3
Aroclor 1262	ND		ug/kg	33 3
Aroclor 1268	ND		ug/kg	33 3

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	75		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	83		30-150	B

Project Name:	515 SOMERVILLE AVE	**Lab Number:**	L0907777
Project Number:	2315.03	**Report Date:**	06/22/09

Method Blank Analysis
Batch Quality Control

Analytical Method	64,8082	Extraction Method.	EPA 3546
Analytical Date	06/22/09 09:09	Extraction Date.	06/19/09 22:00
Analyst	SH	Cleanup Method1:	EPA 3665A
		Cleanup Date1.	06/20/09

Parameter	Result	Qualifier	Units	RDL
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 01 Batch: WG367683-1				
Aroclor 1016	ND		ug/kg	33 3
Aroclor 1221	ND		ug/kg	33 3
Aroclor 1232	ND		ug/kg	33.3
Aroclor 1242	ND		ug/kg	33 3
Aroclor 1248	ND		ug/kg	33 3
Aroclor 1254	ND		ug/kg	33 3
Aroclor 1260	ND		ug/kg	33 3
Aroclor 1262	ND		ug/kg	33 3
Aroclor 1268	ND		ug/kg	33 3

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	69		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	105		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name:	515 SOMERVILLE AVE	**Lab Number:**	L0907777
Project Number:	2315.03	**Report Date:**	06/22/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 02 Batch: WG366888-2 WG366888-3					
Aroclor 1016	85	83	40-140	2	30
Aroclor 1260	83	76	40-140	6	30

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	80		72		30-150	A
Decachlorobiphenyl	93		61		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		72		30-150	B
Decachlorobiphenyl	96		84		30-150	B

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 01 Batch WG367683-2 WG367683-3					
Aroclor 1016	89	83	40-140	18	30
Aroclor 1260	64	75	40-140	16	30

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		76		30-150	A
Decachlorobiphenyl	78		80		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		80		30-150	B
Decachlorobiphenyl	95		106		30-150	B

METALS

Project Name:	515 SOMERVILLE AVE	**Lab Number:**	L0907777
Project Number:	2315.03	**Report Date:**	06/22/09

SAMPLE RESULTS

Lab ID:	L0907777-01	Date Collected:	06/12/09 13:55
Client ID:	NORTH TANK SOLIDS	Date Received:	06/12/09
Sample Location:	SOMERVILLE, MA	Field Prep:	Not Specified
Matrix:	Soil		
Percent Solids:	63%		

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab										
Arsenic, Total	32		mg/kg	0.63	1	06/15/09 16:15	06/17/09 16:00	EPA 3050B	60,6010B	MG
Cadmium, Total	68		mg/kg	0.63	1	06/15/09 16:15	06/17/09 16:00	EPA 3050B	60,6010B	MG
Chromium, Total	330		mg/kg	0.63	1	06/15/09 16:15	06/17/09 18:00	EPA 3050B	60,6010B	MG
Lead, Total	2200		mg/kg	3.2	1	06/15/09 16:15	06/17/09 16:00	EPA 3050B	60,6010B	MG
Mercury, Total	5.1	E	mg/kg	0.12	1	06/15/09 22:10	06/16/09 13:15	EPA 7471A	64,7471A	EZ
Mercury, Total	5.6		mg/kg	0.61	5	06/15/09 22:10	06/16/09 13:52	EPA 7471A	64,7471A	EZ

Project Name:	515 SOMERVILLE AVE	**Lab Number:**	L0907777
Project Number:	2315.03	**Report Date:**	06/22/09

SAMPLE RESULTS

Lab ID:	L0907777-02	Date Collected:	06/12/09 13:35
Client ID:	SOUTHERN GAS TANK SOLIDS	Date Received:	06/12/09
Sample Location:	SOMERVILLE, MA	Field Prep:	Not Specified
Matrix:	Soil		
Percent Solids:	92%		

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab										
Arsenic, Total	5.4		mg/kg	0.43	1	06/15/09 16:15	06/17/09 16:25	EPA 3050B	60,6010B	MG
Cadmium, Total	ND		mg/kg	0.43	1	06/15/09 16:15	06/17/09 16:25	EPA 3050B	60,6010B	MG
Chromium, Total	13		mg/kg	0.43	1	06/15/09 16:15	06/17/09 16:25	EPA 3050B	60,6010B	MG
Lead, Total	120		mg/kg	2.1	1	06/15/09 16:15	06/17/09 18:25	EPA 3050B	60,6010B	MG
Mercury, Total	ND		mg/kg	0.09	1	06/15/09 22:10	06/16/09 13:16	EPA 7471A	64,7471A	EZ

Project Name:	515 SOMERVILLE AVE	**Lab Number:**	L0907777
Project Number:	2315.03	**Report Date:**	06/22/09

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 01-02 Batch: WG366911-1									
Arsenic, Total	ND		mg/kg	0.40	1	06/15/09 16:15	06/17/09 15:32	60,6010B	MG
Cadmium, Total	ND		mg/kg	0.40	1	06/15/09 16:15	06/17/09 15:32	60,6010B	MG
Chromium, Total	ND		mg/kg	0.40	1	06/15/09 16:15	06/17/09 15:32	60,6010B	MG
Lead, Total	ND		mg/kg	2.0	1	06/15/09 16:15	06/17/09 15:32	60,6010B	MG

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 01-02 Batch: WG366946-1									
Mercury, Total	ND		mg/kg	0.08	1	06/15/09 22:10	06/16/09 12:51	64,7471A	EZ

Prep Information

Digestion Method EPA 7471A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 515 SOMERVILLE AVE
Project Number: 2315.03
Lab Number: L0907777
Report Date: 06/22/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Total Metals - Westborough Lab Associated sample(s): 01-02 Batch: WG366911-2 WG366911-3					
Arsenic, Total	101	101	75-125	0	30
Cadmium, Total	102	104	75-125	2	30
Chromium, Total	102	101	75-125	1	30
Lead, Total	102	104	75-125	2	30
MCP Total Metals - Westborough Lab Associated sample(s): 01-02 Batch: WG366946-2 WG366946-3					
Mercury, Total	108	111	75-125	5	30

INORGANICS
&
MISCELLANEOUS

Project Name: 515 SOMERVILLE AVE
Project Number: 2315.03
Lab Number: L0907777
Report Date: 06/22/09

SAMPLE RESULTS

Lab ID: L0907777-01
Client ID: NORTH TANK SOLIDS
Sample Location: SOMERVILLE, MA
Matrix: Soil
Date Collected: 06/12/09 13:55
Date Received: 06/12/09
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Damp Paste
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	06/12/09 17:25	1.1030	TH

Project Name: 515 SOMERVILLE AVE
Project Number: 2315.03
Lab Number: L0907777
Report Date: 06/22/09

SAMPLE RESULTS

Lab ID: L0907777-02
Client ID: SOUTHERN GAS TANK SOLIDS
Sample Location: SOMERVILLE, MA
Matrix: Soil
Date Collected: 06/12/09 13:35
Date Received: 06/12/09
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Dry Sand
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	06/12/09 17:25	1.1030	TH

Project Name: 515 SOMERVILLE AVE
Project Number: 2315.03
Lab Number: L0907777
Report Date: 06/22/09

SAMPLE RESULTS

Lab ID: L0907777-01
Client ID: NORTH TANK SOLIDS
Sample Location: SOMERVILLE, MA
Matrix: Soil
Date Collected: 06/12/09 13:55
Date Received: 06/12/09
Field Prep: Not Specified

Paremetar	Raault	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Data Analyzed	Analytical Method	Analyst
General Chemistry - Weetborough Lab									
Solids, Total	63		%	0.10	1	-	06/16/09 10:09	30,2540G	MC
pH	9.2		SU	-	1	-	06/15/09 20:50	1,9045C	BH
Cyenide, Reactive	ND		mg/kg	10	1	-	06/17/09 15:00	1,7.3	TH
Sulfide, Reactive	ND		mg/kg	10	1	-	06/17/09 15:00	1,7.3	TH

Project Name: 515 SOMERVILLE AVE
Project Number: 2315.03
Leb Number: L0907777
Report Date: 06/22/09

SAMPLE RESULTS

Lab ID: L0907777-02
Client ID: SOUTHERN GAS TANK SOLIDS
Sample Location: SOMERVILLE, MA
Matrix: Soil
Date Collected: 06/12/09 13:35
Date Received: 06/12/09
Field Prep: Not Specified

Paramatar	Rasult	Qualifiar	Units	RDL	Dilution Factor	Data Prepared	Deta Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab									
Solids, Totel	92		%	0 10	1	-	06/16/09 10:09	30,2540G	MC
pH	11 6		SU	-	1	-	06/15/09 20:50	1,9045C	BH
Cyanide, Reactive	ND		mg/kg	10	1	-	06/17/09 15:00	1,7 3	TH
Sulfide, Reactive	ND		mg/kg	10	1	-	06/17/09 15:00	1,7.3	TH

Project Name: 515 SOMERVILLE AVE
Project Number: 2315.03
Lab Number: L0907777
Report Date: 06/22/09

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analyticel Method	Analyst
General Chemistry - Westborough Leb for sample(s): 01-02 Batch: WG367281-1									
Sulfide, Reactive	ND		mg/kg	10	1	-	06/17/09 15:00	1,7.3	TH
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG367282-1									
Cyanide, Reactive	ND		mg/kg	10	1	-	06/17/09 15:00	1,7.3	TH

Project Name: 515 SOMERVILLE AVE
Project Number: 2315.03
Lab Number: L0907777
Report Date: 06/22/09

Lab Control Sample Analysis
Batch Quelity Control

Paremeter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limite
General Chemistry - Westborough Leb Associated sample(s): 01-02 Batch: WG366945-1					
pH	101	-		-	
General Chemistry - Westborough Leb Associated sample(s): 01-02 Batch: WG367281-2					
Sulfide, Reactive	80	-	60-125	-	40
General Chemistry - Westborough Leb Associated sample(s): 01-02 Batch: WG367282-2					
Cyanide Reactive	67	-	30-125	-	40

Lab Duplicate Analysis
Batch Quality Control

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG366945-2 QC Sample: L0907741-06 Client ID: DUP Sample					
pH	8 0	8 0	SU	0	
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG366988-1 QC Sample: L0907757-01 Client ID: DUP Sample					
Solids, Total	35	37	%	6	20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG367281-3 QC Sample: L0907961-01 Client ID: DUP Sample					
Sulfide, Reactive	ND	ND	mg/kg	NC	40
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG367282-3 QC Sample: L0907961-01 Client ID: DUP Sample					
Cyanide, Reactive	ND	ND	mg/kg	NC	40

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0907777-01A	Vial MeOH preserved	A	N/A	4 5	Y	Absent	MCP-8260HLW(14)
L0907777-01B	Vial water preserved	A	N/A	4 5	Y	Absent	MCP-8260HLW(14)
L0907777-01C	Vial water preserved	A	N/A	4 5	Y	Absent	MCP-8260HLW(14)
L0907777-01D	Amber 250ml unpreserved	A	N/A	4 5	Y	Absent	IGNIT-1030(14) REACTS(14) MCP-AS-6010T(180),TS(7) MCP-PB-6010T(180),PH-9045(1),MCP-7471T(28),MCP-CD-6010T(180),MCP-CR-6010T(180),REACTCN(14)
L0907777-01E	Amber 250ml unpreserved	A	N/A	4 5	Y	Absent	MCP-8082-04(14),TPH-DRO-D(14)
L0907777-02A	Vial MeOH preserved	A	N/A	4 5	Y	Absent	MCP-8260HLW(14)
L0907777-02B	Vial water preserved	A	N/A	4 5	Y	Absent	MCP-8260HLW(14)
L0907777-02C	Vial water preserved	A	N/A	4 5	Y	Absent	MCP-8260HLW(14)
L0907777-02D	Amber 250ml unpreserved	A	N/A	4 5	Y	Absent	IGNIT-1030(14) REACTS(14) MCP-AS-6010T(180),TS(7),MCP-PB-6010T(180),PH-9045(1),MCP-7471T(28) MCP-CD-6010T(180),MCP-CR-6010T(180),REACTCN(14)
L0907777-02E	Amber 250ml unpreserved	A	N/A	4 5	Y	Absent	MCP-8082-04(14),TPH-DRO-D(14)

*Hold days indicated by values in parentheses

GLOSSARY

Acronyms

EPA	Environmental Protection Agency.
LCS	Laboratory Control Sample A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes
LCSD	Laboratory Control Sample Duplicate Refer to LCS
MS	Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	Matrix Spike Sample Duplicate: Refer to MS
NA	Not Applicable.
NC	Not Calculated Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
ND	Not detected at the reported detection limit for the sample.
NI	Not Ignitable
RDL	Reported Detection Limit The value at which an instrument can accurately measure an analyte at a specific concentration. The RDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	Relative Percent Difference The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report

Terms

Analytical Method Both the document from which the method originates and the analytical reference method (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

*	The batch duplicate RPD exceeds the acceptance criteria. This flag is not applicable when the sample concentrations are less than 5x the RDL (Metals only.)
A	Spectra identified as "Aldol Condensation Product"
B	The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte
D	Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte
E	Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
H	The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection
N	The matrix spike recovery exceeds the acceptance criteria. This flag is not applicable when the sample concentration is greater than 4x the spike added (Metals only.)
P	The RPD between the results for the two columns exceeds the method-specified criteria.
R	Analytical results are from sample re-analysis
RE	Analytical results are from sample re-extraction.
J	Estimated value This represents an estimated concentration for Tentatively Identified Compounds (TICs)

Report Format: Data Usability Report

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods EPA SW-846. Third Edition. Updates I - IIIA, 1997.

30 Standard Methods for the Examination of Water and Wastewater APHA-AWWA-WPCF. 18th Edition. 1992.

60 Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). May 2004.

64 Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). August 2004

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Woods Hole Labs shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Woods Hole Labs

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised June 17, 2009 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing ot analytes for the reterenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Haloecetic Acids, Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB).)
Westewater/Non-Potable Weter (Inorganic Perameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Calcium Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphete, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)
Solid Weste/Soil (Inorganic Parameters: Lead in Paint, pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), Reactivity. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Voletile Organics, Acid Extractables (Phenols), 3.3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Meine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Weter (Inorganic Parameters: SM9215B, 9221E, 9222B, 9222D, 9223B, EPA 150.1, 180.1, 300.0, 353.2, SM2130B, 2320B, 4500Cl-O, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B,4500NO3-F, EPA 200.7, EPA 200.8, 245.1. Organic Parameters: 504.1, 524.2, SM 6251B.)
Westeweter/Non-Poteble Weter (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, Lachat 10-107-06-1-B, SM2320B, 2340B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B.5, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624.)

Massachusetts Department of Environmentai Protection Certificate/Lab ID: M-MA086.
Drinking Weter
Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl)
(EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Nitrite-N, Fluoride, Sulfate)
353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, EPA 150.1, SM4500H-B.
Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics)
(504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), SM6251B, 314.0.

Non-Poteble Water
Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn)
(EPA 200.7 for: Al,Sb,As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Tl,Tl,V,Zn,Ca,Mg,Na,K)
245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2540B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Nitrate-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-B,C-Titr, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CN-CE, 2540D, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics)
(608 for: Chlordane, Aldrin, Oieldrin, DOO, OOE, ODT, Heptachlor, Heptachlor Epoxide, PCB-Water)
600/4-81-045-PCB-Oil

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
Drinking Water
Microbiology Parameters: SM9215B; MF-SM9222B; ENZ. SUB. SM9223; EC-SM9221E; MF-SM9222O; ENZ. SUB. SM9223;

Naw Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Weter (Inorganic Parameters: SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 110.2, 120.1, 150.1, 300.0, 325.2, 314.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. Organic Parameters: 504.1, 524.2, SM6251B.)
Non-Poteble Water (Inorganic Parameters: SM9222O, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 150.1, 300.0, 305.1, 310.1, 325.2, 340.2, 350.1, 350.2, 351.1, 353.2, 354.1, 365.2, 375.4, 376.2, 405.1, 415.1, 420.1, 425.1, 1664A, SW-846 9010, 9030, 9040B, EPA 160.1, 160.2, 160.3, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH3-H, 4500NH3-E, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)
Solid & Chemical Materiels (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. Organic Parameters: SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

New Jersey Departmant of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Weter (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, 331.0, 110.2, SM2120B, 2510B, 5310C, EPA 150.1, SM4500H-B, EPA 200.8, 245.2. Organic Parameters: 504.1, SM6251B, 524.2.)
Non-Potable Weter (Inorganic Parameters: SM5210B, EPA 410.1, SM5220D, 4500Cl-O, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S *D*, EPA 350.2/.1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7.)
Solid & Chemicel Materials (Inorganic Parameters: SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. Organic Parameters: SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 1312, 3540C, 3545, 3550B, 3580A, 5035L, 5035H, NJ OOA-OAM-025 Rev.7.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Weter (Inorganic Parameters: SM9223B, 9222B, 8215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 314.0, 331.0, SM2320B, EPA 300.0, 325.2, 110.2, SM2120B, 4500CN-E, 4500F-C, EPA 150.1, SM4500H-B, 4500NO3-F, 2540C, EPA 120.1, SM 2510B. Organic Parameters: EPA 524.2, 504.1, SM6251B.)
Non-Poteble Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, EPA 405.1, SM5210B, EPA 410.4, SM5220D, EPA 305.1, SM2310B-4a, EPA 310.1, SM2320B, EPA 200.7, 300.0, 325.2, LACHAT 10-117-07-1A or B, SM4500Cl-E, EPA 340.2, SM4500F-C, EPA 375.4, SM15 426C, EPA 350.1, 350.2, LACHAT 10-107-06-1-B, SM4500NH3-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO30F, EPA 354.1, SM4500-NO2-B, EPA 365.2, SM4500P-E, EPA 160.3, EPA 160.1, SM2540C, EPA 160.2, SM2540O, EPA 200.8, EPA 6010B, 6020, EPA 7196A, S\M3500Cr-D, EPA 245.1, 245.2, 7470A, 110.2, SM2120B, 335.2, LACHAT 10-204-00-1-A, EPA 150.1, 9040B, SM4500-HB, EPA 1664A, EPA 415.1, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, EPA 376.2, SM4500S-D, EPA 425.1, SM5540C, EPA 3005A, 3015. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, 8021B, EPA 3510C, 5030B, 9010B, 9030B.)
Solid & Hazardous Waste (Inorganic Parameters: EPA 9040B, 9045C, 1010, 1030, SW-848 Ch 7 Sec 7.3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 3005A, 3050B, 3051, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8081A, 8151A, 8330, 8082, 8021B, 3540C, 3545, 3580, 5030B, 5035.)
Analyticel Services Protocol: CLP Volatile Organics, CLP Inorganics, CLP PCB/Pesticides.

Rhode Island Department of Haalth Certificate/Lab IO: LAO00065. ***NELAP Accredited via NY-DOH.***
Refer to MA-OEP Certificate for Potable and Non-Potable Water.
Refer to NY-OOH Certificate for Potable and Non-Potable Water.

Pannsylvania Department of Environmental Protection Certificate/Lab IO: 68-03671. ***NELAP Accredited.***
Non-Poteble Weter (Organic Parameters: EPA 3510C, 625, 608, 8081A, 8082, 8151A, 8270C, 8330)
Solid & Hezerdous Weste (Inorganic Parameters: EPA 1010, 1030, 1311, 3050B, 3051, 6010B, EPA 7.3.3.2, EPA 7.3.4.2, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065. Organic Parameters: 3540C, 3545, 3580A, 5035, 8021B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 06/12/09

ALPHA Job #: L0907777

ALPHA
WESTBORO MA
TEL 508-898-9220
FAX 508-898-9193
MANSFIELD MA
TEL 508-822-9300
FAX 508-822-3288

Client Information

Client: Sanborn, Head, + Assoc
Address: 1 Technology Park Dr
Westford MA 01886
Phone: 978-392-0900
Fax: 978-392-0987
Email: dwood@sanbornhead.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: 515 Somerville Ave
Project Location: Somerville, MA
Project #: 23.5.03
Project Manager: Duncan Wood
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH

Date Due: 06/19/09 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #

Regulatory Requirements/Report Limits

State /Fed Program: MCP
Criteria: GW-1

MA MCP PRESUMPTIVE CERTAINTY CT REASONABLE CONFIDENCE PROTOCOLS

☒ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

SAMPLE HANDLING

Filtration
☐ Done
☒ Not needed
☐ Lab to do
Preservation
☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	8260 (Low)	8260 (High)	TPH-DRO, PAHs, MA Red, [illegible]	TCRAS	Sample Specific Comments
7777 1	North Tank Solids	6/12/09	13.55	S	SAW	X	X	X	X	5
2	Southern Gas Tank Solids	6/12/09	13:35	S	SAW	X	X	X	X	5
	Temp Blank									1

Container Type: AV AV A A
Preservative: O F A A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By	Date/Time	Received By	Date/Time
	6/12/09 16:10		6/12/09 16:10

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO 01-01 (rev. 14-OCT-07)

ALPHA
ANALYTICAL

ANALYTICAL REPORT

Lab Number:	L0908376
Client:	Sanborn, Head & Associates, Inc 1 Technology Park Drive Westford, MA 01886
ATTN:	Duncan Wood
Project Name:	515 SOMERVILLE AVE
Project Number:	2315.03
Report Date:	06/29/09

Certifications & Approvals MA (M MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

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Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L0908376-01	NORTH TANK SOLIDS	SOMERVILLE, MA	06/12/09 13 55
L0908376-02	SOUTHERN GAS TANK SOLIDS	SOMERVILLE, MA	06/12/09 13 35

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A, B, C & D is required for "Presumptive Certainty" status		
A	Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B	Were all QA/QC procedures required for the specified analytical methods(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2 0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D	VPH and EPH methods only Was the VPH or EPH method run without significant modifications, as specified in Section 11 3?	N/A
A response to questions E and F is required for "Presumptive Certainty" status		
E	Were all QC performance standards and recommendations for the specified method(s) achieved?	YES
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters The data presented in this report is organized by parameter (i e VOC, SVOC, etc.) Sample specific Quality Control data (i e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively When multiple Batch Quality Control elements are reported (e.g more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody

For additional information, please contact Client Services at 800-624-9220

MCP Related Narratives

Report Submission

All MCP required questions were answered with affirmative responses, therefore there are no relevant data issues to discuss

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete This certificate of analysis is not complete unless this page accompanies any and all pages of this report

Authorized Signature

Title Technical Director/Representative

Date 06/29/09

METALS

Project Name:	515 SOMERVILLE AVE	**Lab Number:**	L0908376
Project Number:	2315.03	**Report Date:**	06/29/09

SAMPLE RESULTS

Lab ID:	L0908376-01	Date Collected:	06/12/09 13:55
Client ID:	NORTH TANK SOLIDS	Date Received:	06/12/09
Sample Location:	SOMERVILLE, MA	Field Prep:	Not Specified
Matrix:	Soil	TCLP/SPLP Ext. Date:	06/24/09 15:15

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab										
Cadmium, TCLP	0.35		mg/l	0.10	1	06/26/09 14:00	06/26/09 18:00	EPA 3015	1,6010B	AI
Chromium, TCLP	0.23		mg/l	0.20	1	06/26/09 14:00	06/26/09 18:00	EPA 3015	1,6010B	AI
Lead, TCLP	0.60		mg/l	0.50	1	06/26/09 14:00	06/26/09 18:00	EPA 3015	1,6010B	AI
Mercury, TCLP	ND		mg/l	0.0010	1	06/25/09 19:00	06/26/09 12:57	EPA 7470A	1,7470A	EZ

Project Name:	515 SOMERVILLE AVE	**Lab Number:**	L0908376
Project Number:	2315.03	**Report Date:**	06/29/09

SAMPLE RESULTS

Lab ID:	L0908376-02	Date Collected:	06/12/09 13:35
Client ID:	SOUTHERN GAS TANK SOLIDS	Date Received:	06/12/09
Sample Location:	SOMERVILLE, MA	Field Prep:	Not Specified
Matrix:	Soil	TCLP/SPLP Ext. Date:	06/24/09 15:15

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab										
Lead, TCLP	ND		mg/l	0.50	1	06/26/09 14:00	06/26/09 18:18	EPA 3015	1,6010B	AI

Project Name:	515 SOMERVILLE AVE	**Lab Number:**	L0908376
Project Number:	2315.03	**Report Date:**	06/29/09

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG368472-1									
Mercury, TCLP	ND		mg/l	0.0010	1	06/25/09 19:00	06/26/09 12.43	1,7470A	EZ

Prep Information

Digestion Method: EPA 7470A
TCLP Extraction Date: 06/24/09 15:15

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab for sample(s): 01-02 Batch: WG368820-1									
Cadmium, TCLP	ND		mg/l	0.10	1	06/26/09 14:00	06/26/09 17:51	1,6010B	AI
Chromium, TCLP	ND		mg/l	0.20	1	06/26/09 14.00	06/26/09 17:51	1,6010B	AI
Lead, TCLP	ND		mg/l	0.50	1	06/26/09 14:00	06/26/09 17:51	1,6010B	AI

Prep Information

Digestion Method: EPA 3015
TCLP Extraction Date: 06/24/09 15:15

Lab Control Sample Analysis

Batch Quality Control

Project Name: 515 SOMERVILLE AVE
Project Number: 2315 03

Lab Number: L0908376
Report Date: 06/29/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG368472-2					
Mercury TCLP	110	-	80-120	-	
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-02 Batch: WG368620-2					
Cadmium, TCLP	100	-	75-125	-	20
Chromium, TCLP	94	-	75-125		20
Lead, TCLP	98		75-125	-	20

Matrix Spike Analysis

Batch Quality Control

Project Name: 515 SOMERVILLE AVE
Project Number: 2315.03

Lab Number: L0908376
Report Date: 06/29/09

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01 QC Batch ID: WG368472-4 QC Sample: L0908376-01 Client ID: NORTH TANK SOLIDS									
Mercury, TCLP	ND	0 005	0.0062	124	-	-	70-130	-	20
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG368620-4 QC Sample: L0908376-01 Client ID: NORTH TANK SOLIDS									
Cadmium, TCLP	0 35	10	10	96	-	-	75-125	-	20
Chromium, TCLP	0 23	10	9 4	92	-	-	75-125	-	20
Lead, TCLP	0 60	10	10	94	-	-	75-125	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name 515 SOMERVILLE AVE
Project Number: 2315 03

Lab Number: L0908376
Report Date: 06/29/09

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s). 01 QC Batch ID: WG388472-3 QC Sample: L0908376-01 Client ID: NORTH TANK SOLIDS					
Mercury TCLP	ND	ND	mg/l	NC	20
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s) 01-02 QC Batch ID. WG368620-3 QC Sample: L0908376-01 Client ID: NORTH TANK SOLIDS					
Cadmium TCLP	0 35	0 34	mg/l	3	20
Chromium, TCLP	0 23	0.22	mg/l	4	20
Lead TCLP	0 60	0 56	mg/l	7	20

Project Name: 515 SOMERVILLE AVE
Project Number: 2315.03

Lab Number: L0908376
Report Date: 06/29/09

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0908376-01A	Amber 250ml unpreserved	A	N/A	4 5	Y	Absent	
L0908376-01X	Plastic 250ml HNO3 preserved spl	A	<2	4 5	Y	Absent	CD-CI(180),HG-C(26),PB-CI(180),CR-CI(180)
L0908376-02A	Amber 250ml unpreserved	A	N/A	4 5	Y	Absent	-
L0908376-02X	Plastic 250ml HNO3 preserved spl	A	<2	4 5	Y	Absent	PB-CI(180)

*Hold days indicated by values in parentheses

GLOSSARY

Acronyms

EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
ND	- Not detected at the reported detection limit for the sample.
NI	- Not Ignitable.
RDL	- Reported Detection Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

Terms

Analytical Method. Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

*	- The batch duplicate RPD exceeds the acceptance criteria. This flag is not applicable when the sample concentrations are less than 5x the RDL. (Metals only.)
A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
N	- The matrix spike recovery exceeds the acceptance criteria. This flag is not applicable when the sample concentration is greater than 4x the spike added. (Metals only.)
P	- The RPD between the results for the two columns exceeds the method-specified criteria.
R	- Analytical results are from sample re-analysis.
RE	- Analytical results are from sample re-extraction.
J	- Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Woods Hole Labs shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Woods Hole Labs.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised June 24, 2009 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited*** ***Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Haloacetic Acids, Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB).)
Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Calcium Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)
Solid Waste/Soil (Inorganic Parameters: Lead in Paint, pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), Reactivity. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3.3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9221E, 9222B, 9222D, 9223B, EPA 150.1, 180.1, 300.0, 353.2, SM2130B, 2320B, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B,4500NO3-F, EPA 200.7, EPA 200.8, 245.1. Organic Parameters: 504.1, 524 2, SM 6251B.)
Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, Lachat 10-107-06-1-B, SM2320B, 2340B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B.5, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
Drinking Water
Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl)
(EPA 200.7 for: Ba,Be,Ce,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Nitrite-N, Fluoride, Sulfate)
353 2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, EPA 150.1, SM4500H-B.
Organic Parameters: (EPA 524 2 for: Trihalomethanes, Volatile Organics)
(504.1 for: 1.2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), SM6251B, 314.0.

Non-Potable Water
Inorganic Parameters , (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn)
(EPA 200.7 for: Al,Sb,As,Ba,Cd,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Tl,Ti,V,Zn,Ce,Mg,Na,K)
245.1, SM4500H,B, EPA 120.1. SM2510B, 2540C, 2540B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Nitrate-N, SM4500NO3-F, 353.2 for Nitrite-N, SM4500NH3-B,C-Titr, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CN-CE, 2540D, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1
Organic Parameters (EPA 624 for Volatile Halocarbons, Volatile Aromatics)
(608 for Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCB-Water)
600/4-81-045-PCB-Oil

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
Drinking Water
Microbiology Parameters: SM9215B; MF-SM9222B, ENZ. SUB. SM9223; EC-SM9221E; MF-SM9222D; ENZ. SUB. SM9223;

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 110.2, 120.1, 150.1, 300.0, 325.2, 314.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. Organic Parameters: 504.1, 524.2, SM6251B.)
Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 150.1, 300.0, 305.1, 310.1, 325.2, 340.2, 350.1, 350.2, 351.1, 353.2, 354.1, 365.2, 375.4, 376.2, 405.1, 415.1, 420.1, 425.1, 1664A, SW-848 9010, 9030, 9040B, EPA 160.1, 160.2, 160.3, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH3-H, 4500NH3-E, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 825, 608, SW-846 8082, 8081A.)
Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. Organic Parameters: SW-848 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

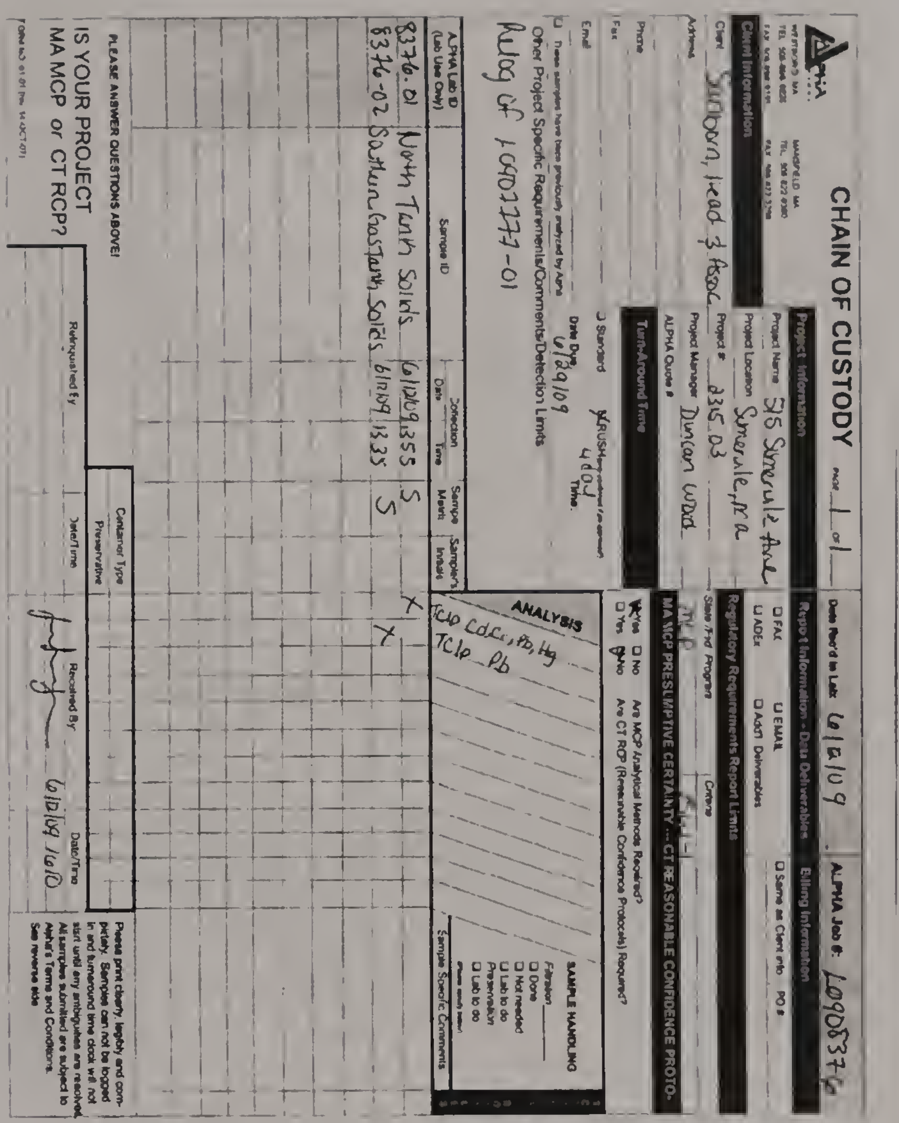
New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, 331.0, 110.2, SM2120B, 2510B, 5310C, EPA 150.1, SM4500H-B, EPA 200.8, 245.2. Organic Parameters: 504.1, SM6251B, 524.2.)
Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.1, SM5220D, 4500Cl-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353 2, SM4500NO3-F, 4500NO2-B, EPA 1884A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.2/.1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-848 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330, NJ OOA-QAM-025 Rev.7.)
Solid & Chemical Materials (Inorganic Parameters: SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. Organic Parameters: SW-848 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 1312, 3540C, 3545, 3550B, 3580A, 5035L, 5035H, NJ OOA-OAM-025 Rev.7.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 8215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 314.0, 331.0, SM2320B, EPA 300.0, 325.2, 110.2, SM2120B, 4500CN-E, 4500F-C, EPA 150.1, SM4500H-B, 4500NO3-F, 2540C, EPA 120.1, SM 2510B. Organic Parameters: EPA 524.2, 504 1, SM6251B.)
Non-Potable Water (Inorganic Parameters SM9221E, 9222D, 9221B, 9222B, 9215B, EPA 405.1, SM5210B, EPA 410.4, SM5220D, EPA 305.1, SM2310B-4a, EPA 310.1, SM2320B, EPA 200.7, 300 0, 325.2, LACHAT 10-117-07-1A or B, SM4500Cl-E, EPA 340.2, SM4500F-C, EPA 375.4, SM15 426C, EPA 350.1, 350.2, LACHAT 10-107-06-1-B, SM4500NH3-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO30F, EPA 354.1, SM4500-NO2-B, EPA 365 2, SM4500P-E, EPA 160.3, EPA 160.1, SM2540C, EPA 160.2, SM2540D, EPA 200.8, EPA 6010B, 6020, EPA 7198A, S\M3500Cr-D, EPA 245.1, 245.2, 7470A, 110 2, SM2120B, 335.2, LACHAT 10-204-00-1-A, EPA 150.1, 9040B, SM4500-HB, EPA 1684A, EPA 415.1, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, EPA 376 2, SM4500S-D, EPA 425.1, SM5540C, EPA 3005A, 3015. Organic Parameters: EPA 624, 8260B, 8270C, 825, 608, 8081A, 8151A, 8330, 8082, 8021B, EPA 3510C, 5030B, 9010B, 9030B.)
Solid & Hazardous Waste (Inorganic Parameters EPA 9040B, 9045C, 1010, 1030, SW-846 Ch 7 Sec 7 3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 3005A, 3050B, 3051, 9010B, 9030B Organic Parameters EPA 8280B, 8270C, 8081A, 8151A, 8330, 8082, 8021B, 3540C, 3545. 3580, 5030B, 5035.)
Analytical Services Protocol: CLP Volatile Organics, CLP Inorganics, CLP PCB/Pesticides

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671 ***NELAP Accredited.***
Non-Potable Water (Organic Parameters EPA 3510C, 625, 608, 8081A, 8082, 8151A, 8270C, 8330)
Solid & Hazardous Waste (Inorganic Parameters EPA 1010, 1030, 1311, 3050B, 3051, 8010B, EPA 7 3.3 2, EPA 7.3.4 2, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065 Organic Parameters 3540C, 3545, 3580A, 5035, 8021B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NY-DOH.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NY-DOH Certificate for Potable and Non-Potable Water

Utah Department of Health Certificate/Lab ID: AAMA. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: Chloride EPA 300.0)



CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 6/12/09

ALPHA Job #: L0908376

WESTBORO, MA | MANSFIELD, MA

Client Information

Client: Sanborn, Head & Assoc

Address:

Phone:

Fax:

Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: 515 Somerville Ave

Project Location: Somerville, MA

Project #: 2315.03

Project Manager: Duncan Wood

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH

Date Due: 6/29/09 Time: 4 day

Report Information - Data Deliverables

☐ FAX ☐ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #

Regulatory Requirements Report Limits

State /Fed Program: MCP

Criteria: GW-1

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

☒ Yes ☐ No Are MCP Analytical Methods Required?

☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits

Relog of L0907777-01

ANALYSIS: TCLP Cd,Cr,Pb,Hg; TCLP Pb

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TCLP Cd,Cr,Pb,Hg	TCLP Pb	Sample Specific Comments
8376.01	North Tank Solids	6/12/09	1355	S		X		
8376-02	Southern Gas Tank Solids	6/12/09	13:35	S			X	

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

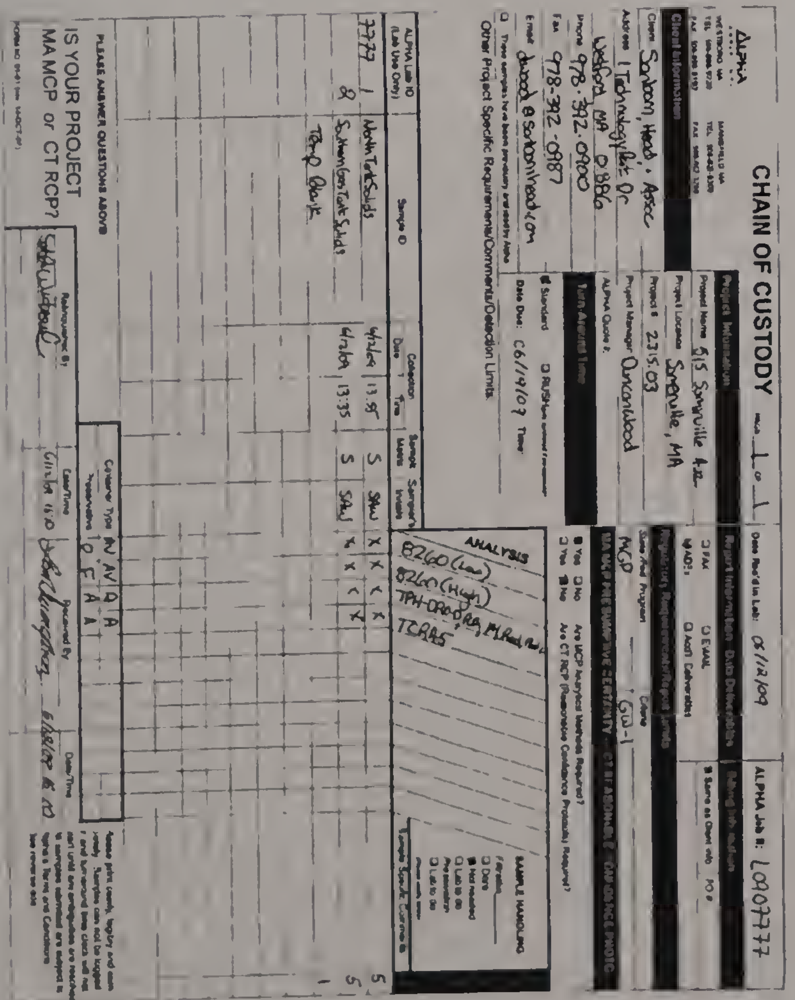
Container Type

Preservative

Relinquished By	Date/Time	Received By	Date/Time
			6/12/09 1610

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 14-OCT-07)



CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 06/12/09

ALPHA Job #: L0907777

WESTBORO, MA | MANSFIELD, MA

Client Information

Client: Sanborn, Head, & Assoc

Address: 1 Technology Park Dr
Westford, MA 01886

Phone: 978-392-0900

Fax: 978-392-0987

Email: dwood@sanbornhead.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: 515 Somerville Ave

Project Location: Somerville, MA

Project #: 2315.03

Project Manager: Duncan Wood

ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH

Date Due: 06/19/09 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL

☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #

Regulatory Requirements/Report Limits

State /Fed Program: MCP

Criteria: GW-1

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

☒ Yes ☐ No Are MCP Analytical Methods Required?

☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits

ANALYSIS: 8260 (Low); 8260 (High); TPH-DRO, DRO, PCBs, MCP Metals; TCRA5

SAMPLE HANDLING
Filtration
☐ Done
☒ Not needed
☐ Lab to do
Preservation
☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	8260 (Low)	8260 (High)	TPH-DRO	TCRA5	Sample Specific Comments
7777 1	North Tank Solids	6/12/09	13:55	S	SAW	X	X	X	X	5
2	Southern Gas Tank Solids	6/12/09	13:35	S	SAW	X	X	X	X	5
	Temp Blank									1

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Container Type: AV AV A A

Preservative: O F A A

Relinquished By	Date/Time	Received By	Date/Time
	6/12/09 15:10		6/12/09 16:10

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 14-OCT-07)

NETLAB

REPORT OF ANALYTICAL RESULTS

NETLAB Case Number V0219-20

Prepared for:

Attn: Robert Houghton
Action Environmental, Inc.
184 Riverview Ave.
Waltham, MA 02453

Report Date: March 1, 2010

Lab # RI010

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue, North Providence, RI 02904
(401) 353-3420

ANALYTICAL METHOD REPORT CERTIFICATION FORM

Laboratory Name. New England Testing Laboratory, Inc. Project #: 3120

Project Location: 515 Somerville Avenue, Somerville MA RTN[1]:

This form provides certifications for the following data set: V0219-20

Sample Matrices: Groundwater ( ) Soil/Sediment (x) Drinking Water ( ) Other:

SW-846 Methods Used	8260B (x)	8151A ( )	8330 ( )	6010B ( )	7470A/1A ( )
	8270C ( )	8081A ( )	VPH ( )	6020 ( )	9014M[2] ( )
	8082 ( )	8021B ( )	EPH (x)	7000 S[3] ( )	Other: ( )

1 List Release Tracking Number (RTN), if known
2 M – SW-846 Method 9014 or MADEP Physiologically Available Cyanide (PAC) Method
3 S – SW-846 Methods 7000 Series List individual method and analyte

An affirmative response to questions A, B, and C is required for "Presumptive Certainty" status

A	Were all samples received by the laboratory in a condition consistent with that described on the Chain-of Custody documentation for the data set?	Yes (X) No[1] ( )
B	Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	Yes (X) No[1] ( )
C	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in Section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No[1] ( ) Not Applicable ( )
D	***VPH and EPH Methods only*** Was the VPH and EPH Method conducted without significent modifications (see Section 11.3 of respective Methods)	Yes (X) No[1] ( )

A response to questions E and F below is required for "Presumptive Certainty" status

E	Were all QC performance standards and recommendations for the specified methods achieved?	Yes (X) No[1] ( )
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?	Yes (X) No[1] ( )

[1]All NO answers must be addressed in an attached Environmental Laboratory case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Position: Laboratory Director

Printed Name: Richard Warila Date: 3/1/2010

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The samples listed in Table I were submitted to New England Testing Laboratory on February 19, 2010. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. This report of analytical results pertains only to sample(s) provided to us by the client which are indicated on the custody record. The case number for this sample submission is V0219-20.

Custody records are included in this report.

Site: 515 Somerville Avenue, Somerville, MA

TABLE I, Samples Submitted

Sample ID	Date Sampled	Matrix	Analysis Requested
AE101-0/3	2/18/10	Soil	Table II
AE101-3/6.5	2/18/10	Soil	Table II
AE102-0/3	2/18/10	Soil	Table II
AE102-3/6	2/18/10	Soil	Table II
AE103-0/3	2/18/10	Soil	Table II
AE104-0/3	2/18/10	Soil	Table II
AE104-3/6	2/18/10	Soil	Table II
AE105-1/3	2/18/10	Soil	Table II
AE106-3/6	2/18/10	Soil	Table II
AE107-0/3	2/18/10	Soil	Table II
AE107-3-5.5	2/18/10	Soil	Table II
AE108-0/3	2/18/10	Soil	Table II
AE108-3/6	2/18/10	Soil	Table II
AE109-12/15	2/18/10	Soil	Table II, III

TABLE II, Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
EPH	NA	**

TABLE III, Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
Volatile Organic Compounds	5030B	8260B

These methods are documented in:

*Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MADEP

**Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MADEP.

CASE NARRATIVE:

Sample Receipt:

No sample for ms/msd/duplicate analysis was supplied. No trip blank was supplied. No field blank was supplied y. (This does not qualify the analytical results but does prevent conducting these SW-846 (Chapter 1, Section 3.4) QA Audits.)

The samples were all appropriately cooled and preserved upon receipt.

The samples were received in the appropriate containers.

The chain of custody was adequately completed and corresponded to the samples submitted.

EPH:

All samples were extracted and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

Volatiles:

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

RESULTS: EXTRACTABLE PETROLEUM HYDROCARBONS

Results for EPH analysis are presented in the following section. Each page is electronically signed.

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE101-0/3
Method for Target Analytes		Lab ID		V0219-20
EPH Surrogate Standards Aliphatic: Chlorooctadecane Aromatic: o-Terphenyl		Date Collected		2/18/10
		Date Received		2/19/10
		Date Extracted		2/25/10
EPH Fractionation Surrogates 2-Fluorobiphenyl / 2-Bromonaphthalene		Date Analyzed		2/25/10,2/26/10
		Dilution Factor		1X
		% Moisture (soil)		8.92
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		10.9	mg/Kg	<10.9
Diesel PAH Analytes	Naphthalene	0.27	mg/Kg	<0.27
	2-Methylnaphthalene	0.27	mg/Kg	<0.27
	Phenanthrene	0.27	mg/Kg	<0.27
	Acenaphthylene	0.27	mg/Kg	<0.27
Other Target PAH Analytes	Acenaphthene	0.27	mg/Kg	<0.27
	Fluorene	0.27	mg/Kg	<0.27
	Anthracene	0.27	mg/Kg	<0.27
	Fluoranthene	0.27	mg/Kg	<0.27
	Pyrene	0.27	mg/Kg	<0.27
	Benzo(a)anthracene	0.27	mg/Kg	<0.27
	Chrysene	0.27	mg/Kg	<0.27
	Benzo(b)fluoranthene	0.27	mg/Kg	<0.27
	Benzo(k)fluoranthene	0.27	mg/Kg	<0.27
	Benzo(a)pyrene	0.27	mg/Kg	<0.27
	Indeno(1,2,3-cd)pyrene	0.27	mg/Kg	<0.27
	Dibenzo(a,h)anthracene	0.27	mg/Kg	<0.27
	Benzo(g,h,i)perylene	0.27	mg/Kg	<0.27
C9-C18 Aliphatic Hydrocarbons[1]		10.9	mg/Kg	<10.9
C19-C36 Aliphatic Hydrocarbons[1]		10.9	mg/Kg	<10.9
C11-C22 Aromatic Hydrocarbons[1,2]		10.9	mg/Kg	<10.9
Aliphatic Surrogate % Recovery				59
Aromatic Surrogate % Recovery				81
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				88
Fractionation Surrogate % Recovery				73
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached

Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached

Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: ______ POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE101-3/6.5
Method for Target Analytes		Lab ID		V0219-20
EPH Surrogate Standards Aliphatic: Chlorooctadecane Aromatic: o-Terphenyl		Date Collected		2/18/10
		Date Received		2/19/10
		Date Extracted		2/25/10
EPH Fractionation Surrogates 2-Fluorobiphenyl 2-Bromonaphthalene		Date Analyzed		2/25/10, 2/26/10
		Dilution Factor		1X
		% Moisture (soil)		8.24
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Ammatics[1]		10.7	mg/Kg	25.8
Diesel PAH Analytes	Naphthalene	0.27	mg/Kg	0.3
	2-Methylnaphthalene	0.27	mg/Kg	<0.27
	Phenanthrene	0.27	mg/Kg	<0.27
	Acenaphthylene	0.27	mg/Kg	<0.27
Other Target PAH Analytes	Acenaphthene	0.27	mg/Kg	<0.27
	Fluorene	0.27	mg/Kg	<0.27
	Anthracene	0.27	mg/Kg	<0.27
	Fluoranthene	0.27	mg/Kg	<0.27
	Pyrene	0.27	mg/Kg	<0.27
	Benzo(a)anthracene	0.27	mg/Kg	<0.27
	Chrysene	0.27	mg/Kg	<0.27
	Benzo(b)fluoranthene	0.27	mg/Kg	<0.27
	Benzo(k)fluoranthene	0.27	mg/Kg	<0.27
	Benzo(a)pyrene	0.27	mg/Kg	<0.27
	Indeno(1,2,3-cd)pyrene	0.27	mg/Kg	<0.27
	Dibenzo(a,h)anthracene	0.27	mg/Kg	<0.27
	Benzo(g,h,i)perylene	0.27	mg/Kg	<0.27
C9-C18 Aliphatic Hydrocarbons[1]		10.7	mg/Kg	<10.7
C19-C36 Aliphatic Hydrocarbons[1]		10.7	mg/Kg	<10.7
C11-C22 Aromatic Hydrocarbons[1,2]		10.7	mg/Kg	25.5
Aliphatic Surrogate % Recovery				48
Aromatic Surrogate % Recovery				73
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				83
Fractionation Surrogate % Recovery				50
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached

Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached

Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: ______ POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE102-0/3
Method for Target Analytes:		Lab ID		V0219-20
EPH Surrogate Standards Aliphatic: Chlorooctadecane Aromatic: o-Terphenyl		Date Collected		2/18/10
		Date Received		2/19/10
		Date Extracted		2/25/10
EPH Fractionation Surrogates 2-Fluorobiphenyl 2-Bromonaphthalene		Date Analyzed		2/25/10 ,2/26/10
		Dilution Factor		1X
		% Moisture (soil)		9.99
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		10.8	mg/Kg	27.2
Diesel PAH Analytes	Naphthalene	0.27	mg/Kg	<0.27
	2-Methylnaphthalene	0.27	mg/Kg	<0.27
	Phenanthrene	0.27	mg/Kg	0.5
	Acenaphthylene	0.27	mg/Kg	<0.27
Other Target PAH Analytes	Acenaphthene	0.27	mg/Kg	<0.27
	Fluorene	0.27	mg/Kg	<0.27
	Anthracene	0.27	mg/Kg	<0.27
	Fluoranthene	0.27	mg/Kg	0.9
	Pyrene	0.27	mg/Kg	1.0
	Benzo(a)anthracene	0.27	mg/Kg	0.5
	Chrysene	0.27	mg/Kg	0.6
	Benzo(b)fluoranthene	0.27	mg/Kg	0.5
	Benzo(k)fluoranthene	0.27	mg/Kg	0.4
	Benzo(a)pyrene	0.27	mg/Kg	0.4
	Indeno(1,2,3-cd)pyrene	0.27	mg/Kg	<0.27
	Dibenzo(a,h)anthracene	0.27	mg/Kg	<0.27
	Benzo(g,h,i)perylene	0.27	mg/Kg	<0.27
C9-C18 Aliphatic Hydrocarbons[1]		10.8	mg/Kg	<10.8
C19-C36 Aliphatic Hydrocarbons[1]		10.8	mg/Kg	<10.8
C11-C22 Aromatic Hydrocarbons[1,2]		10.8	mg/Kg	<22.4
Aliphatic Surrogate % Recovery				71
Aromatic Surrogate % Recovery				96
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				98
Fractionation Surrogate % Recovery				99
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached

Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached

Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: ______ POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE102-3/6
Method for Target Analytes:	Lab ID	V0219-20
EPH Surrogate Standards	Date Collected	2/18/10
Aliphatic: Chlorooctadecane	Date Received	2/19/10
Aromatic: o-Terphenyl	Date Extracted	2/25/10
EPH Fractionation Surrogates	Date Analyzed	2/25/10, 2/26/10
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	11.48

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		11.0	mg/Kg	<11.0
Diesel PAH Analytes	Naphthalene	0.28	mg/Kg	<0.28
	2-Methylnaphthalene	0.28	mg/Kg	<0.28
	Phenanthrene	0.28	mg/Kg	<0.28
	Acenaphthylene	0.28	mg/Kg	<0.28
Other Target PAH Analytes	Acenaphthene	0.28	mg/Kg	<0.28
	Fluorene	0.28	mg/Kg	<0.28
	Anthracene	0.28	mg/Kg	<0.28
	Fluoranthene	0.28	mg/Kg	<0.28
	Pyrene	0.28	mg/Kg	<0.28
	Benzo(a)anthracene	0.28	mg/Kg	<0.28
	Chrysene	0.28	mg/kg	<0.28
	Benzo(b)fluoranthene	0.28	mg/Kg	<0.28
	Benzo(k)fluoranthene	0.28	mg/Kg	<0.28
	Benzo(a)pyrene	0.28	mg/Kg	<0.28
	Indeno(1,2,3-cd)pyrene	0.28	mg/Kg	<0.28
	Dibenzo(a,h)anthracene	0.28	mg/Kg	<0.28
	Benzo(g,h,i)perylene	0.28	mg/Kg	<0.28
C9-C18 Aliphatic Hydrocarbons[1]		11.0	mg/Kg	<11.0
C19-C36 Aliphatic Hydrocarbons[1]		11.0	mg/Kg	<11.0
C11-C22 Aromatic Hydrocarbons[1,2]		11.0	mg/Kg	<11.0
Aliphatic Surrogate % Recovery				63
Aromatic Surrogate % Recovery				93
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				106
Fractionation Surrogate % Recovery				73
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE103-0/3
Method for Target Analytes:	Lab ID	V0219-20
EPH Surrogate Standards	Date Collected	2/18/10
Aliphatic: Chlorooctadecane	Date Received	2/19/10
Aromatic: o-Terphenyl	Date Extracted	2/25/10
EPH Fractionation Surrogates	Date Analyzed	2/25/10, 2/26/10
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	17.01

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		12.0	mg/Kg	17.4
Diesel PAH Analytes	Naphthalene	0.30	mg/kg	<0.30
	2-Methylnaphthalene	0.30	mg/Kg	<0.30
	Phenanthrene	0.30	mg/kg	<0.30
	Acenaphthylene	0.30	mg/Kg	<0.30
Other Target PAH Analytes	Acenaphthene	0.30	mg/kg	<0.30
	Fluorene	0.30	mg/Kg	<0.30
	Anthracene	0.30	mg/Kg	<0.30
	Fluoranthene	0.30	mg/kg	0.50
	Pyrene	0.30	mg/Kg	0.60
	Benzo(a)anthracene	0.30	mg/kg	0.30
	Chrysene	0.30	mg/Kg	0.40
	Benzo(b)fluoranthene	0.30	mg/kg	0.30
	Benzo(k)fluoranthene	0.30	mg/Kg	0.30
	Benzo(a)pyrene	0.30	mg/Kg	0.30
	Indeno(1,2,3-cd)pyrene	0.30	mg/Kg	<0.30
	Dibenzo(a,b)anthracene	0.30	mg/Kg	<0.30
	Benzo(g,h,i)perylene	0.30	mg/Kg	<0.30
C9-C18 Aliphatic Hydrocarbons[1]		12.0	mg/Kg	<12.0
C19-C36 Aliphatic Hydrocarbons[1]		12.0	mg/Kg	<12.0
C11-C22 Aromatic Hydrocarbons[1,2]		12.0	mg/Kg	14.7
Aliphatic Surrogate % Recovery				52
Aromatic Surrogate % Recovery				82
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				97
Fractionation Surrogate % Recovery				79
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

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SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE104-0/3
Method for Target Analytes:	Lab ID	V0219/20
EPH Surrogate Standards	Date Collected	2/18/10
Aliphatic: Chlorooctadecane	Date Received	2/19/10
Aromatic: o-Terphenyl	Date Extracted	2/25/10
EPH Fractionation Surrogates	Date Analyzed	2/25/10, 2/26/10
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	10.88

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		11.2	mg/Kg	16.5
Diesel PAH Analytes	Naphthalene	0.28	mg/Kg	<0.28
	2-Methylnaphthalene	0.28	mg/Kg	<0.28
	Phenanthrene	0.28	mg/Kg	0.40
	Acenaphthylene	0.28	mg/Kg	<0.25
Other Target PAH Analytes	Acenaphthene	0.28	mg/Kg	<0.25
	Fluorene	0.28	mg/Kg	<0.25
	Anthracene	0.28	mg/Kg	<0.25
	Fluoranthene	0.28	mg/Kg	0.60
	Pyrene	0.28	mg/Kg	0.60
	Benzo(a)anthracene	0.28	mg/Kg	0.30
	Chrysene	0.28	mg/Kg	0.30
	Benzo(b)fluoranthene	0.28	mg/Kg	0.30
	Benzo(k)fluoranthene	0.28	mg/Kg	0.30
	Benzo(a)pyrene	0.28	mg/Kg	0.30
	Indeno(1,2,3-cd)pyrene	0.28	mg/Kg	<0.28
	Dibenzo(a,h)anthracene	0.28	mg/Kg	<0.28
	Benzo(g,h,i)perylene	0.28	mg/Kg	<0.28
C9-C18 Aliphatic Hydrocarbons[1]		11.2	mg/Kg	<11.2
C19-C36 Aliphatic Hydrocarbons[1]		11.2	mg/Kg	<11.2
C11-C22 Aromatic Hydrocarbons[1,2]		11.2	mg/Kg	13.4
Aliphatic Surrogate % Recovery				48
Aromatic Surrogate % Recovery				59
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				68
Fractionation Surrogate % Recovery				52
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

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SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE104-3/6
Method for Target Analytes:	Lab ID	V0219-20
EPH Surrogate Standards	Date Collected	2/18/10
Aliphatic: Chlorooctadecane	Date Received	2/19/10
Aromatic: o-Terphenyl	Date Extracted	2/25/10
EPH Fractionation Surrogates	Date Analyzed	2/25/10, 2/26/10
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	11.35

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		11.0	mg/Kg	<11.0
Diesel PAH Analytes	Naphthalene	0.28	mg/Kg	<0.28
	2-Methylnaphthalene	0.28	mg/Kg	<0.28
	Phenanthrene	0.28	mg/Kg	<0.28
	Acenaphthylene	0.28	mg/Kg	<0.28
Other Target PAH Analytes	Acenaphthene	0.28	mg/Kg	<0.28
	Fluorene	0.28	mg/Kg	<0.28
	Anthracene	0.28	mg/Kg	<0.28
	Fluoranthene	0.28	mg/Kg	<0.28
	Pyrene	0.28	mg/Kg	<0.28
	Benzo(a)anthracene	0.28	mg/Kg	<0.28
	Chrysene	0.28	mg/Kg	<0.28
	Benzo(b)fluoranthene	0.28	mg/Kg	<0.28
	Benzo(k)fluoranthene	0.28	mg/Kg	<0.28
	Benzo(a)pyrene	0.28	mg/Kg	<0.28
	Indeno(1,2,3-cd)pyrene	0.28	mg/Kg	<0.28
	Dibenzo(a,h)anthracene	0.28	mg/Kg	<0.28
	Benzo(g,h,i)perylene	0.28	mg/Kg	<0.28
C9-C18 Aliphatic Hydrocarbons[1]		11.0	mg/Kg	<11.0
C19-C36 Aliphatic Hydrocarbons[1]		11.0	mg/Kg	<11.0
C11-C22 Aromatic Hydrocarbons[1,2]		11.0	mg/Kg	<11.0
Aliphatic Surrogate % Recovery				61
Aromatic Surrogate % Recovery				79
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				7293
Fractionation Surrogate % Recovery				72
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

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SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges MADEP EPH 98-1	Client ID	AE105-1/3
Method for Target Analytes:	Lab ID	V0219-20
EPH Surrogate Standards	Date Collected	2/18/10
Aliphatic Chlorooctadecane	Date Received	2/19/10
Aromatic o-Terphenyl	Date Extracted	2/25/10
EPH Fractionation Surrogates	Date Analyzed	2/25/10, 2/26/10
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	13.60

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		11.4	mg/Kg	170
Diesel PAH Analytes	Naphthalene	0.29	mg/Kg	<0.29
	2-Methylnaphthalene	0.29	mg/Kg	<0.29
	Phenanthrene	0.29	mg/Kg	6.7
	Acenaphthylene	0.29	mg/Kg	<0.29
Other Target PAH Analytes	Acenaphthene	0.29	mg/Kg	0.40
	Fluorene	0.29	mg/Kg	0.70
	Anthracene	0.29	mg/Kg	1.7
	Fluoranthene	0.29	mg/Kg	11.5
	Pyrene	0.29	mg/Kg	6.8
	Benzo(a)anthracene	0.29	mg/Kg	5.5
	Chrysene	0.29	mg/Kg	6.3
	Benzo(b)fluoranthene	0.29	mg/Kg	6.5
	Benzo(k)fluoranthene	0.29	mg/Kg	4.2
	Benzo(a)pyrene	0.29	mg/Kg	3.9
	Indeno(1,2,3-cd)pyrene	0.29	mg/Kg	2.6
	Dibenzo(a,h)anthracene	0.29	mg/Kg	3.6
	Benzo(g,h,i)perylene	0.29	mg/Kg	4.4
C9-C18 Aliphatic Hydrocarbons[1]		11.4	mg/Kg	<11.4
C19-C36 Aliphatic Hydrocarbons[1]		11.4	mg/Kg	<11.4
C11-C22 Aromatic Hydrocarbons[1,2]		11.4	mg/Kg	105
Aliphatic Surrogate % Recovery				60
Aromatic Surrogate % Recovery				75
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				67
Fractionation Surrogate % Recovery				52
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

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SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE106-3/6
Method for Target Analytes:	Lab ID	V0219-20
EPH Surrogate Standards	Date Collected	2/18/10
Aliphatic: Chlorooctadecane	Date Received	2/19/10
Aromatic: o-Terphenyl	Date Extracted	2/25/10
EPH Fractionation Surrogates	Date Analyzed	2/25/10, 2/26/10
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	26.69

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		13.4	mg/Kg	19.8
Diesel PAH Analytes	Naphthalene	0.34	mg/Kg	<0.34
	2-Methylnaphthalene	0.34	mg/Kg	<0.34
	Phenanthrene	0.34	mg/Kg	0.40
	Acenaphthylene	0.34	mg/Kg	<0.34
Other Target PAH Analytes	Acenaphthene	0.34	mg/Kg	<0.34
	Fluorene	0.34	mg/Kg	<0.34
	Anthracene	0.34	mg/Kg	<0.34
	Fluoranthene	0.34	mg/Kg	0.70
	Pyrene	0.34	mg/Kg	0.80
	Benzo(a)anthracene	0.34	mg/Kg	0.40
	Chrysene	0.34	mg/Kg	0.40
	Benzo(b)fluoranthene	0.34	mg/Kg	<0.34
	Benzo(k)fluoranthene	0.34	mg/Kg	<0.34
	Benzo(a)pyrene	0.34	mg/Kg	0.40
	Indeno(1,2,3-cd)pyrene	0.34	mg/Kg	<0.34
	Dibenzo(a,h)anthracene	0.34	mg/Kg	<0.34
	Benzo(g,h,i)perylene	0.34	mg/Kg	<0.34
C9-C18 Aliphatic Hydrocarbons[1]		13.4	mg/Kg	<13.4
C19-C36 Aliphatic Hydrocarbons[1]		13.4	mg/Kg	<13.4
C11-C22 Aromatic Hydrocarbons[1,2]		13.4	mg/Kg	16.1
Aliphatic Surrogate % Recovery				53
Aromatic Surrogate % Recovery				61
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				55
Fractionation Surrogate % Recovery				45
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

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Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
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SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE107-0/3
Method for Target Analytes:	Lab ID	V0219-20
EPH Surrogate Standards	Date Collected	2/18/10
Aliphatic: Chlorooctadecane	Date Received	2/19/10
Aromatic: o-Terphenyl	Date Extracted	2/25/10
EPH Fractionation Surrogates	Date Analyzed	2/25/10, 2/26/10
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	14.77

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		11.6	mg/Kg	79.1
Diesel PAH Analytes	Naphthalene	0.29	mg/Kg	<0.29
	2-Methylnaphthalene	0.29	mg/Kg	<0.29
	Phenanthrene	0.29	mg/Kg	2.1
	Acenaphthylene	0.29	mg/Kg	<0.29
Other Target PAH Analytes	Acenaphthene	0.29	mg/Kg	<0.29
	Fluorene	0.29	mg/Kg	<0.29
	Anthracene	0.29	mg/Kg	0.60
	Fluoranthene	0.29	mg/Kg	4.5
	Pyrene	0.29	mg/Kg	4.4
	Benzo(a)anthracene	0.29	mg/Kg	2.5
	Chrysene	0.29	mg/Kg	2.9
	Benzo(b)fluoranthene	0.29	mg/Kg	2.3
	Benzo(k)fluoranthene	0.29	mg/Kg	2.3
	Benzo(a)pyrene	0.29	mg/Kg	2.5
	Indeno(1,2,3-cd)pyrene	0.29	mg/Kg	1.1
	Dibenzo(a,h)anthracene	0.29	mg/Kg	1.3
	Benzo(g,h,i)perylene	0.29	mg/Kg	1.5
C9-C18 Aliphatic Hydrocarbons[1]		11.6	mg/Kg	<11.6
C19-C36 Aliphatic Hydrocarbons[1]		11.6	mg/Kg	<11.6
C11-C22 Aromatic Hydrocarbons[1,2]		11.6	mg/Kg	51.1
Aliphatic Surrogate % Recovery				72
Aromatic Surrogate % Recovery				77
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				52
Fractionation Surrogate % Recovery				45
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

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SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE107-3-5.5
Method for Target Analytes:	Lab ID	V0219-20
EPH Surrogate Standards	Date Collected	2/18/10
Aliphatic: Chlorooctadecane	Date Received	2/19/10
Aromatic: o-Terphenyl	Date Extracted	2/25/10
EPH Fractionation Surrogates	Date Analyzed	2/25/10, 2/26/10
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	35.82

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		15.5	mg/Kg	<15.5
Diesel PAH Analytes	Naphthalene	0.39	mg/Kg	<0.39
	2-Methylnaphthalene	0.39	mg/Kg	<0.39
	Phenanthrene	0.39	mg/Kg	<0.39
	Acenaphthylene	0.39	mg/Kg	<0.39
Other Target PAH Analytes	Acenaphthene	0.39	mg/Kg	<0.39
	Fluorene	0.39	mg/Kg	<0.39
	Anthracene	0.39	mg/Kg	<0.39
	Fluoranthene	0.39	mg/Kg	<0.39
	Pyrene	0.39	mg/Kg	<0.39
	Benzo(a)anthracene	0.39	mg/Kg	<0.39
	Chrysene	0.39	mg/Kg	<0.39
	Benzo(b)fluoranthene	0.39	mg/Kg	<0.39
	Benzo(k)fluoranthene	0.39	mg/Kg	<0.39
	Benzo(a)pyrene	0.39	mg/Kg	<0.39
	Indeno(1,2,3-cd)pyrene	0.39	mg/Kg	<0.39
	Dibenzo(a,h)anthracene	0.39	mg/Kg	<0.39
	Benzo(g,h,i)perylene	0.39	mg/Kg	<0.39
C9-C18 Aliphatic Hydrocarbons[1]		15.5	mg/Kg	<15.5
C19-C36 Aliphatic Hydrocarbons[1]		15.5	mg/Kg	<15.5
C11-C22 Aromatic Hydrocarbons[1,2]		15.5	mg/Kg	<15.5
Aliphatic Surrogate % Recovery				65
Aromatic Surrogate % Recovery				61
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				48
Fractionation Surrogate % Recovery				41
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE108-0/3
Method for Target Analytes:		Lab ID		V0219-20
EPH Surrogate Standards		Date Collected		2/18/10
Aliphatic: Chlorooctadecane		Date Received		2/19/10
Aromatic: o-Terphenyl		Date Extracted		2/25/10
EPH Fractionation Surrogates		Date Analyzed		2/25/10, 2/26/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		15.23
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		11.7	mg/Kg	40.7
Diesel PAH Analytes	Naphthalene	0.29	mg/Kg	<0.29
	2-Methylnaphthalene	0.29	mg/Kg	<0.29
	Phenanthrene	0.29	mg/Kg	1.5
	Acenaphthylene	0.29	mg/Kg	<0.29
Other Target PAH Analytes	Acenaphthene	0.29	mg/Kg	<0.29
	Fluorene	0.29	mg/Kg	<0.29
	Anthracene	0.29	mg/Kg	0.30
	Fluoranthene	0.29	mg/Kg	2.9
	Pyrene	0.29	mg/Kg	3.1
	Benzo(a)anthracene	0.29	mg/Kg	1.5
	Chrysene	0.29	mg/Kg	1.7
	Benzo(b)fluoranthene	0.29	mg/Kg	1.6
	Benzo(k)fluoranthene	0.29	mg/Kg	0.80
	Benzo(a)pyrene	0.29	mg/Kg	1.4
	Indeno(1,2,3-cd)pyrene	0.29	mg/Kg	0.60
	Dibenzo(a,h)anthracene	0.29	mg/Kg	0.60
	Benzo(g,h,i)perylene	0.29	mg/Kg	0.80
C9-C18 Aliphatic Hydrocarbons[1]		11.7	mg/Kg	<11.7
C19-C36 Aliphatic Hydrocarbons[1]		11.7	mg/Kg	<11.7
C11-C22 Aromatic Hydrocarbons[1,2]		11.7	mg/Kg	23.9
Aliphatic Surrogate % Recovery				68
Aromatic Surrogate % Recovery				91
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				74
Fractionation Surrogate % Recovery				40
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE108-3/6
Method for Target Analytes:		Lab ID		V0219-20
EPH Surrogate Standards		Date Collected		2/18/10
Aliphatic: Chlorooctadecane		Date Received		2/19/10
Aromatic: o-Terphenyl		Date Extracted		2/25/10
EPH Fractionation Surrogates		Date Analyzed		2/25/10, 2/26/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		12.87
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		11.2	mg/Kg	<11.2
Diesel PAH Analytes	Naphthalene	0.28	mg/Kg	<0.28
	2-Methylnaphthalene	0.28	mg/Kg	<0.28
	Phenanthrene	0.28	mg/Kg	<0.28
	Acenaphthylene	0.28	mg/Kg	<0.28
Other Target PAH Analytes	Acenaphthene	0.28	mg/Kg	<0.28
	Fluorene	0.28	mg/Kg	<0.28
	Anthracene	0.28	mg/Kg	<0.28
	Fluoranthene	0.28	mg/Kg	<0.28
	Pyrene	0.28	mg/Kg	<0.28
	Benzo(a)anthracene	0.28	mg/Kg	<0.28
	Chrysene	0.28	mg/Kg	<0.28
	Benzo(b)fluoranthene	0.28	mg/Kg	<0.28
	Benzo(k)fluoranthene	0.28	mg/Kg	<0.28
	Benzo(a)pyrene	0.28	mg/Kg	<0.28
	Indeno(1,2,3-cd)pyrene	0.28	mg/Kg	<0.28
	Dibenzo(a,h)anthracene	0.28	mg/Kg	<0.28
	Benzo(g,h,i)perylene	0.28	mg/Kg	<0.28
C9-C18 Aliphatic Hydrocarbons[1]		11.2	mg/Kg	<11.2
C19-C36 Aliphatic Hydrocarbons[1]		11.2	mg/Kg	<11.2
C11-C22 Aromatic Hydrocarbons[1,2]		11.2	mg/Kg	<11.2
Aliphatic Surrogate % Recovery				98
Aromatic Surrogate % Recovery				74
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				67
Fractionation Surrogate % Recovery				67
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the poins and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE109-12/15
Method for Target Analytes:		Lab ID		V0219-20
EPH Surrogate Standards		Date Collected		2/18/10
Aliphatic: Chlorooctadecane		Date Received		2/19/10
Aromatic: o-Terphenyl		Date Extracted		2/25/10
EPH Fractionation Surrogates		Date Analyzed		2/25/10, 2/26/10
2-Fluorobiphenyl		Dilution Factor		1X,20X
2-Bromonaphthalene		% Moisture (soil)		14.0
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		11.2	mg/Kg	83.1
Diesel PAH Analytes	Naphthalene	0.28	mg/Kg	2.4
	2-Methylnaphthalene	0.28	mg/Kg	0.40
	Phenanthrene	0.28	mg/Kg	0.40
	Acenaphthylene	0.28	mg/Kg	<0.28
Other Target PAH Analytes	Acenaphthene	0.28	mg/Kg	<0.28
	Fluorene	0.28	mg/Kg	<0.28
	Anthracene	0.28	mg/Kg	<0.28
	Fluoranthene	0.28	mg/Kg	0.30
	Pyrene	0.28	mg/Kg	0.30
	Benzo(a)anthracene	0.28	mg/Kg	<0.28
	Chrysene	0.28	mg/Kg	<0.28
	Benzo(b)fluoranthene	0.28	mg/Kg	<0.28
	Benzo(k)fluoranthene	0.28	mg/Kg	<0.28
	Benzo(a)pyrene	0.28	mg/Kg	<0.28
	Indeno(1,2,3-cd)pyrene	0.28	mg/Kg	<0.28
	Dibenzo(a,h)anthracene	0.28	mg/Kg	<0.28
	Benzo(g,h,i)perylene	0.28	mg/Kg	<0.28
C9-C18 Aliphatic Hydrocarbons[1]		11.2	mg/Kg	2910
C19-C36 Aliphatic Hydrocarbons[1]		11.2	mg/Kg	<11.2
C11-C22 Aromatic Hydrocarbons[1,2]		11.2	mg/Kg	79.3
Aliphatic Surrogate % Recovery				52
Aromatic Surrogate % Recovery				88
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				96
Fractionation Surrogate % Recovery				101
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE POSITION Laboratory Director
PRINTED NAME Richard Warila DATE 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		Method Blank
Method for Target Analytes:		Lab ID		V0219-20
EPH Surrogate Standards		Date Collected		NA
Aliphatic: Chlorooctadecane		Date Received		NA
Aromatic: o-Terphenyl		Date Extracted		2/25/10
EPH Fractionation Surrogates		Date Analyzed		2/25/10, 2/26/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		0.00
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		10.0	mg/Kg	<10.0
Diesel PAH Analytes	Naphthalene	0.25	mg/Kg	<0.25
	2-Methylnaphthalene	0.25	mg/Kg	<0.25
	Phenanthrene	0.25	mg/Kg	<0.25
	Acenaphthylene	0.25	mg/Kg	<0.25
Other Target PAH Analytes	Acenaphthene	0.25	mg/Kg	<0.25
	Fluorene	0.25	mg/Kg	<0.25
	Anthracene	0.25	mg/Kg	<0.25
	Fluoranthene	0.25	mg/Kg	<0.25
	Pyrene	0.25	mg/Kg	<0.25
	Benzo(a)anthracene	0.25	mg/Kg	<0.25
	Chrysene	0.25	mg/Kg	<0.25
	Benzo(b)fluoranthene	0.25	mg/Kg	<0.25
	Benzo(k)fluoranthene	0.25	mg/Kg	<0.25
	Benzo(a)pyrene	0.25	mg/Kg	<0.25
	Indeno(1,2,3-cd)pyrene	0.25	mg/Kg	<0.25
	Dibenzo(a,h)anthracene	0.25	mg/Kg	<0.25
	Benzo(g,h,i)perylene	0.25	mg/Kg	<0.25
C9-C18 Aliphatic Hydrocarbons[1]		10.0	mg/Kg	<10.0
C19-C36 Aliphatic Hydrocarbons[1]		10.0	mg/Kg	<10.0
C11-C22 Aromatic Hydrocarbons[1,2]		10.0	mg/Kg	<10.0
Aliphatic Surrogate % Recovery				53
Aromatic Surrogate % Recovery				70
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				42
Fractionation Surrogate % Recovery				47
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION Laboratory Director
PRINTED NAME: Richard Warila DATE 3/1/2010

```
          Spike Recovery and RPD Summary Report - WATER

Method       : R:\2\METHODS\ARO.M (Chemstation Integrator)
Title        :
Last Update  : Fri Feb 26 12:25:48 2010
Response via : Initial Calibration

Non-Spiked Sample:  F022450.D

          Spike                             Spike
          Sample                            Duplicate Sample
----------------------------------------------------------------------
File ID :  F022451.D                      | F022452.D
Sample  :  LES 2-25                       | LESD 2-25
Acq Time:  25 Feb 20110   9:22 pm          | 25 Feb 20110  10:06 pm
----------------------------------------------------------------------

Compound              Sample Spike Spike  Dup  Spike  Dup  RPD    QC Limits
                       Conc  Added  Res   Res  %Rec  %Rec       RPD  % Rec
----------------------------------------------------------------------
Naphthalene          | 0.0 |  40 |  20 |  18 |  49 |  44 | 10 | 25 | 40-140|
2 methyl naphthalene| 0.0 |  40 |  16 |  18 |  40 |  45 | 12 | 25 | 40-140|
Acenaphthene         | 0.0 |  40 |  17 |  21 |  43 |  53 | 22 | 25 | 40-140|
Anthracene           | 0.0 |  40 |  26 |  33 |  66 |  82 | 21 | 25 | 40-140|
Pyrene               | 0.0 |  40 |  31 |  39 |  77 |  97 | 23 | 25 | 40-140|
Chrysene             | 0.0 |  40 |  34 |  40 |  84 |  99 | 17 | 25 | 40-140|
----------------------------------------------------------------------

  # - Fails Limit Check


          ARO.M          Mon Mar 01 13:39:42 2010
```

```
          Spike Recovery and RPD Summary Report - WATER

Method       : J:\METHODS\EPHALI.M (Chemstation Integrator)
Title        :
Last Update  : Fri Feb 26 11:17:18 2010
Response via : Initial Calibration

Non-Spiked Sample:  J022508.D

          Spike                             Spike
          Sample                            Duplicate Sample
----------------------------------------------------------------------
File ID :  J022509.D                      | J022516.D
Sample  :  LES 2-25                       | LESD 2-25
Acq Time:  25 Feb 20110   4:50 pm          | 25 Feb 20110   8:01 pm
----------------------------------------------------------------------

Compound              Sample Spike Spike  Dup  Spike  Dup  RPD    QC Limits
                       Conc  Added  Res   Res  %Rec  %Rec       RPD  % Rec
----------------------------------------------------------------------
Nonane               | 0.0 |  40 |  13 |  12 |  32 |  30 |  6 | 25 | 30-140|
Tetradecane          | 0.0 |  40 |  24 |  23 |  60 |  58 |  4 | 25 | 40-140|
Nonadecane           | 0.0 |  40 |  23 |  25 |  57 |  62 |  7 | 25 | 40-140|
Eicosane             | 0.0 |  40 |  26 |  27 |  64 |  68 |  7 | 25 | 40-140|
Octacosane           | 0.0 |  40 |  24 |  25 |  60 |  64 |  7 | 25 | 40-140|
----------------------------------------------------------------------

  # - Fails Limit Check


          EPHALI.M       Mon Mar 01 13:43:31 2010
```

RESULTS: VOLATILE ORGANIC COMPOUNDS

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Organics Analysis Department certifies that the samples included in this section have been prepared and analyzed using the procedures cited and that the results have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0219-20
Method: 8260
Matrix: (soil/water) SOIL
Sample wt/vol: 34.2 (g/ml) G
% Moisture 14
Soil Extract Volume: ______ (uL)
Analyst's Initials: HC

Client Name: Action Environmental, Inc
Lab Sample ID: AE-109-12/15
Lab File ID: C022536/C022533/C022535.D
Date Sampled: 2/18/2010
Date Analyzed: 2/25/2010
Dilution Factor: 100/400/4000
Soil Aliquot Volume: ______ (uL)

CAS NO.	COMPOUND	UNITS: UG/KG	Q
75-01-4	Vinyl Chloride	34	U
74-83-9	Bromomethane	34	U
75-00-3	Chloroethane	34	U
67-64-1	Acetone	170	U
75-35-4	1,1-Dichloroethene	34	U
75-15-0	Carbon Disulfide	34	U
75-09-2	Methylene Chloride	34	U
1634-04-4	tert-Butyl methyl ether	34	U
156-60-5	trans-1,2 Dichloroethene	34	U
75-34-3	1,1-Dichloroethane	34	U
78-93-3	2-Butanone	170	U
594-20-7	2,2-Dichloropropane	34	U
156-59-2	cis-1,2-Dichloroethene	34	U
67-66-3	Chloroform	34	U
74-97-5	Bromochloromethane	34	U
71-55-6	1,1,1-Trichloroethane	34	U
563-58-6	1,1-Dichloropropene	34	U
56-23-5	Carbon Tetrachloride	34	U
71-43-2	Benzene	34	U
107-06-2	1,2-Dichloroethane	34	U
79-01-6	Trichloroethene	34	U
78-87-5	1,2-Dichloropropane	34	U
75-27-4	Bromodichloromethane	34	U
74-95-3	Dibromomethane	34	U
108-10-1	4-Methyl-2-pentanone	170	U
106-93-4	Ethylene Dibromide	34	U
10061-01-5	cis-1,3-Dichloropropene	34	U
108-88-3	Toluene	34	U
10061-02-6	Trans-1,3-Dichloropropene	34	U
79-00-5	1,1,2-Trichloroethane	34	U
591-78-6	2-Hexanone	170	U
127-18-4	Tetrachloroethene	34	U
124-48-1	Chlorodibromomethane	34	U
108-90-7	Chlorobenzene	34	U
630-20-6	1,1,1,2-Tetrachloroethene	34	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

NETLAB

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0219-20
Method: 8260
Matrix: (soil/water) SOIL
Sample wt/vol: 34.2 (g/ml) G
% Moisture 14
Soil Extract Volume: ______ (uL)
Analyst's Initials: HC

Client Name: Action Environmental, Inc
Lab Sample ID: AE-109-12/15
Lab File ID: C022536/C022533/C022535.D
Date Sampled: 2/18/2010
Date Analyzed: 2/25/2010
Dilution Factor: 100/400/4000
Soil Aliquot Volume: ______ (uL)

CAS NO.	COMPOUND	UNITS: UG/KG	Q
100-41-4	Ethylbenzene	34	U
1330-20-7	m & p-Xylene	68	U
95-47-6	o-Xylene	34	U
100-42-5	Styrene	34	U
75-25-2	Bromoform	34	U
98-82-8	Isopropylbenzene	3700	
79-34-5	1,1,2,2-Tetrachloroethane	34	U
108-86-1	Bromobenzene	34	U
96-18-4	1,2,3-Trichloropropane	34	U
95-49-8	2-Chlorotoluene	34	U
103-65-1	n-Propylbenzene	12000	
108-67-8	1,3,5-Trimethylbenzene	34	U
106-43-4	4-Chlorotoluene	34	U
98-06-6	tert-Butylbenzene	870	
95-63-6	1,2,4-Trimethylbenzene	88000	
135-98-8	sec-Butylbenzene	6000	
99-87-6	p-Isopropyltoluene	870	
75-87-3	Chloromethane	34	U
75-65-0	tert butyl alcohol	34	U
541-73-1	1,3-Dichlorobenzene	34	U
109-99-9	Tetrahydrofuran	34	U
106-46-7	1,4-Dichlorobenzene	34	U
60-29-7	Diethyl Ether	34	U
104-51-8	n-Butylbenzene	3100	
95-50-1	1,2-Dichlorobenzene	34	U
96-12-8	1,2-Dibromo-3-chloropropane	34	U
120-82-1	1,2,4-Trichlorobenzene	34	U
87-68-3	Hexachlorobutadiene	34	U
91-20-3	Naphthalene	2000	
87-61-6	1,2,3-Trichlorobenzene	34	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

NETLAB

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0219-20
Method: 8260
Matrix: (soil/water) SOIL
Sample wt/vol: 10.0 (g/ml) G
% Moisture 0
Soil Extract Volume: ______ (uL)
Analyst's Initials: HC

Client Name: Action Environmental, Inc
Lab Sample ID: VBLK100225
Lab File ID: C022529.D
Date Sampled: 2/18/2010
Date Analyzed: 2/25/2010
Dilution Factor: 50.0
Soil Aliquot Volume: ______ (uL)

CAS NO.	COMPOUND	UNITS: UG/KG	Q
75-01-4	Vinyl Chloride	50	U
74-83-9	Bromomethane	50	U
75-00-3	Chloroethane	50	U
67-64-1	Acetone	250	U
75-35-4	1,1-Dichloroethene	50	U
75-15-0	Carbon Disulfide	50	U
75-09-2	Methylene Chloride	50	U
1634-04-4	tert-Butyl methyl ether	50	U
156-60-5	trans-1,2 Dichloroethene	50	U
75-34-3	1,1-Dichloroethane	50	U
78-93-3	2-Butanone	250	U
594-20-7	2,2-Dichloropropane	50	U
156-59-2	cis-1,2-Dichloroethene	50	U
67-66-3	Chloroform	50	U
74-97-5	Bromochloromethane	50	U
71-55-6	1,1,1-Trichloroethane	50	U
563-58-6	1,1-Dichloropropene	50	U
56-23-5	Carbon Tetrachloride	50	U
71-43-2	Benzene	50	U
107-06-2	1,2-Dichloroethane	50	U
79-01-6	Trichloroethene	50	U
78-87-5	1,2-Dichloropropane	50	U
75-27-4	Bromodichloromethane	50	U
74-95-3	Dibromomethane	50	U
108-10-1	4-Methyl-2-pentanone	250	U
106-93-4	Ethylene Dibromide	50	U
10061-01-5	cis-1,3-Dichloropropene	50	U
108-88-3	Toluene	50	U
10061-02-6	Trans-1,3-Dichloropropene	50	U
79-00-5	1,1,2-Trichloroethane	50	U
591-78-6	2-Hexanone	250	U
127-18-4	Tetrachloroethene	50	U
124-48-1	Chlorodibromomethane	50	U
108-90-7	Chlorobenzene	50	U
630-20-6	1,1,1,2-Tetrachloroethane	50	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

NETLAB

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0219-20
Method: 8260
Matrix: (soil/water) SOIL
Sample wt/vol: 10.0 (g/ml) G
% Moisture 0
Soil Extract Volume: ______ (uL)
Analyst's Initials: HC

Client Name: Action Environmental, Inc
Lab Sample ID: VBLK100225
Lab File ID: C022529.D
Date Sampled: 2/18/2010
Date Analyzed: 2/25/2010
Dilution Factor: 50.0
Soil Aliquot Volume: ______ (uL)

CAS NO.	COMPOUND	UNITS: UG/KG	Q
100-41-4	Ethylbenzene	50	U
1330-20-7	m & p-Xylene	100	U
95-47-6	o-Xylene	50	U
100-42-5	Styrene	50	U
75-25-2	Bromoform	50	U
98-82-8	Isopropylbenzene	50	U
79-34-5	1,1,2,2-Tetrachloroethane	50	U
108-86-1	Bromobenzene	50	U
96-18-4	1,2,3-Trichloropropane	50	U
95-49-8	2-Chlorotoluene	50	U
103-65-1	n-Propylbenzene	50	U
108-67-8	1,3,5-Trimethylbenzene	50	U
106-43-4	4-Chlorotoluene	50	U
98-06-6	tert-Butylbenzene	50	U
95-63-6	1,2,4-Trimethylbenzene	50	U
135-98-8	sec-Butylbenzene	50	U
99-87-6	p-Isopropyltoluene	50	U
75-87-3	Chloromethane	50	U
75-65-0	tert butyl alcohol	50	U
541-73-1	1,3-Dichlorobenzene	50	U
109-99-9	Tetrahydrofuran	50	U
106-48-7	1,4-Dichlorobenzene	50	U
60-29-7	Diethyl Ether	50	U
104-51-8	n-Butylbenzene	50	U
95-50-1	1,2-Dichlorobenzene	50	U
96-12-8	1,2-Dibromo-3-chloropropane	50	U
120-82-1	1,2,4-Trichlorobenzene	50	U
87-68-3	Hexachlorobutadiene	50	U
91-20-3	Naphthalene	50	U
87-61-6	1,2,3-Trichlorobenzene	50	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

NETLAB

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: New England Testing Lab Contract: 515 Somerville Av
Lab Code: RI010 Case No.: V0219-20 SAS No.: ______ SDG No.: Action Env
Level: (low/med) MED

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	VLCS100225	101	108	100	0
02	VBLK100225	92	96	97	0
03	AE-109-12/15	115	111	92	0

			QC LIMITS
SMC1	=	4-Bromofluorobenzene	(70-130)
SMC2	=	Toluene-D8	(70-130)
SMC3	=	1,2-Dichloroethane-D4	(70-130)

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D System Monitoring Compound diluted out

New England Testing Laboratory, Inc

page 1 of 1 FORM II VOA-2

NETLAB

Volatile Organics Laboratory Control Spike

Date Analyzed: 02/25/2010

Sample ID: VLCS100225

Compound	Spike Added (ug/L)	Spike Result (ug/L)	Recovery, %	Lower Control Limit, %	Upper Control Limit, %
1,1-Dichloroethene	50.0	51.4	103	70	130
Benzene	50.0	48.6	97	70	130
Trichloroethene	50.0	47.3	95	70	130
Toluene	50.0	52.9	106	70	130
Chlorobenzene	50.0	46.6	93	70	130

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Ave.
North Providence, RI 02904
1-888-863-8522

CHAIN OF CUSTODY RECORD

V0219-20

PROJ. NO. 3120

PROJECT NAME/LOCATION: 515 Somerville Ave, Somerville, MA

CLIENT: Action Environmental, 184 Riverview Ave. 1st Floor, Waltham, MA 02453

REPORT TO: Robert Houghton

INVOICE TO: Andrew Clemons

DATE	TIME	COMP	GRAB	SAMPLE I.D.	AQUEOUS	SOIL	OTHER	NO. OF CONTAINERS	PRESERVATIVE	EPH + TARGET PAH	VOCs (8260)	REMARKS
2/18/10		X		AE101 - 0/3		X		1	CHILL	X		
		X		AE101 - 3/6.5		X		1		X		
		X		AE102 - 0/3		X		1		X		
		X		AE102 - 3/6		X		1		X		
		X		AE103 - 0/3		X		1		X		
		X		AE104 - 0/3		X		1		X		
		X		AE104 - 3/6		X		1		X		
		X		AE105 - 1/3		X		1		X		
		X		AE106 - 3/6		X		1		X		
		X		AE107 - 0/3		X		1		X		
		X		AE107 - 3-5.5		X		1		X		
		X		AE108 - 0/3		X		1		X		
		X		AE108 - 3/6		X		1		X		
			X	AE109 - 12/15		X		2	CHILL/MeOH	X	X	

Sampled by (Signature): R Houghton	Date/Time: 2/18/10	Received by (Signature):	Date/Time:
Relinquished by (Signature): R Houghton	Date/Time: 2/19/10 1100	Received by (Signature): Robert Lee	Date/Time: 2/19/10 11:00
Relinquished by (Signature): Robert Lee	Date/Time: 2/19/10 3:50	Received for Laboratory by (Signature):	Date/Time:

Laboratory Remarks:
Temp. received: ______
Cooled ☐

Special Instructions
List Specific Detection Limit Requirements:
MCP S-1/GW-2/3

Turnaround (Business Days): NORMAL 5

NETLAB

REPORT OF ANALYTICAL RESULTS

NETLAB Case Number V0219-20A

Prepared for:

Attn: Robert Houghton
Action Environmental, Inc.
184 Riverview Ave.
Waltham, MA 02453

Report Date: March 8, 2010

Lab # RI010

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue, North Providence, RI 02904
(401) 353-3420

ANALYTICAL METHOD REPORT CERTIFICATION FORM

Laboratory Name: New England Testing Laboratory, Inc. Project #: 3120

Project Location: 515 Somerville Avenue, Somerville MA RTN[1]:

This form provides certifications for the following data set: V0219-20A

Sample Matrices: Groundwater ( ) Soil/Sediment (x) Drinking Water ( ) Other:

SW-846 Methods Used					
	8260B ( )	8151A ( )	8330 ( )	6010B (x)	7470A/1A (x)
	8270C ( )	8081A ( )	VPH ( )	6020 ( )	9014M[2] ( )
	8082 ( )	8021B ( )	EPH ( )	7000 S[3] ( )	Other: ( )

1 List Release Tracking Number (RTN), if known
2 M – SW-846 Method 9014 or MADEP Physiologically Available Cyanide (PAC) Method
3 S – SW-846 Methods 7000 Series List individual method and analyte

An affirmative response to questions A, B, and C is required for "Presumptive Certainty" status

A	Were all samples received by the laboratory in a condition consistent with that described on the Chain-of Custody documentation for the data set?	Yes (X) No[1] ( )
B	Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	Yes (X) No[1] ( )
C	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in Section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No[1] ( ) Not Applicable ( )
D	***VPH and EPH Methods only*** Was the VPH and EPH Method conducted without significant modifications (see Section 11.3 of respective Methods)	Yes ( ) No[1] ( )

A response to questions E and F below is required for "Presumptive Certainty" status

E	Were all QC performance standards and recommendations for the specified methods achieved?	Yes (X) No[1] ( )
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?	Yes (X) No[1] ( )

[1]All NO answers must be addressed in an attached Environmental Laboratory case narrative

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature ____________ Position: Laboratory Director

Printed Name: Richard Warila Date: 3/8/2010

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The samples listed in Table 1 were submitted to New England Testing Laboratory on February 19, 2010 and additional analysis was requested March 2, 2010. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. This report of analytical results pertains only to sample(s) provided to us by the client which are indicated on t he custody record. The case number for this sample submission is V0219-20A.

Custody records are included in this report.

Site: 515 Somerville Avenue, Somerville, MA

TABLE I, Samples Submitted

Sample ID	Date Sampled	Matrix	Analysis Requested
AE101-0/3	2/18/10	Soil	Table II
AE101-3/6.5	2/18/10	Soil	Table II
AE102-0/3	2/18/10	Soil	Table II
AE102-3/6	2/18/10	Soil	Table II
AE103-0/3	2/18/10	Soil	Table II
AE104-0/3	2/18/10	Soil	Table II
AE104-3/6	2/18/10	Soil	Table II
AE105-1/3	2/18/10	Soil	Table II
AE106-3/6	2/18/10	Soil	Table II
AE107-0/3	2/18/10	Soil	Table II
AE107-3-5.5	2/18/10	Soil	Table II
AE108-0/3	2/18/10	Soil	Table II
AE108-3/6	2/18/10	Soil	Table II

TABLE II, Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
Total Metals		
Arsenic	3050B	6010B
Barium	3050B	6010B
Cadmium	3050B	6010B
Chromium	3050B	6010B
Lead	3050B	6010B
Mercury	NA	7471A
Selenium	3050B	6010B
Silver	3050B	6010B

These methods are documented in:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, USEPA/OSW.

CASE NARRATIVE:

Sample Receipt:

No sample for ms/msd/duplicate analysis was supplied. No trip blank was supplied. No field blank was supplied y. (This does not qualify the analytical results but does prevent conducting these SW-846 {Chapter 1, Section 3.4} QA Audits.)

The samples were all appropriately cooled and preserved upon receipt.

The samples were received in the appropriate containers.

The chain of custody was adequately completed and corresponded to the samples submitted.

Metals:

All samples were extracted and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

METALS RESULTS

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Metals Analysis Department certifies that the results included in this section have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

METALS RESULTS

Case Number: V0219-20A
Sample ID: AE101 0/3
Date collected: 2/18/10
Matrix: SOIL
Solids, %: 91.08
Sample Type: Total

Analyst MG/AJ

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Detection Limit	Units	Date of Preparation	Date Analyzed
Arsenic	7440-38-2	3050B	6010B	2.58	0.60	0.60	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	17.4	0.30	0.30	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.30	0.30	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	8.29	0.30	0.30	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	16.1	0.30	0.30	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	ND	0.074	0.074	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.60	0.60	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.30	0.30	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis.

METALS RESULTS

Case Number V0219-20A
Sample ID AE101 3-6.5
Date collected 2/18/10
Matrix SOIL
Solids, % 91.76
Sample Type: Total

Analyst MG/AJ

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Detection Limit	Units	Date of Preparation	Date Analyzed
Arsenic	7440-38-2	3050B	6010B	3.55	0.62	0.62	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	9.09	0.31	0.31	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.31	0.31	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	7.72	0.31	0.31	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	3.05	0.31	0.31	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	ND	0.071	0.071	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.62	0.62	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.31	0.31	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis.

METALS RESULTS

Case Number: V0219-20A
Sample ID: AE102 0/3
Date collected: 2/18/10
Matrix SOIL
Solids, % 90.01
Sample Type: Total

Analyst MG/AJ

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Detection Limit	Units	Date of Preparation	Date Analyzed
Arsenic	7440-38-2	3050B	6010B	2.79	0.63	0.63	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	37.3	0.32	0.32	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.32	0.32	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	5.07	0.32	0.32	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	111	0.32	0.32	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	ND	0.069	0.069	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.63	0.63	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.32	0.32	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis.

METALS RESULTS

Case Number: V0219-20A
Sample ID AE102 3/6
Date collected: 2/18/10
Matrix SOIL
Solids, % 88.52
Sample Type: Total

Analyst MG/AJ

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Detection Limit	Units	Date of Preparation	Date Analyzed
Arsenic	7440-38-2	3050B	6010B	2.43	0.72	0.72	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	9.24	0.36	0.36	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.36	0.36	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	6.30	0.36	0.36	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	3.15	0.36	0.36	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	ND	0.073	0.073	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.72	0.72	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.36	0.36	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis.

METALS RESULTS

Case Number: V0219-20A
Sample ID: AE103 0/3
Date collected: 2/18/10
Matrix SOIL
Solids, % 82.99
Sample Type: Total

Analyst MG/AJ

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Detection Limit	Units	Date of Preparation	Date Analyzed
Arsenic	7440-38-2	3050B	6010B	2.42	0.73	0.73	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	41.7	0.37	0.37	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.37	0.37	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	8.13	0.37	0.37	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	124	0.37	0.37	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	0.204	0.080	0.080	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.73	0.73	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.37	0.37	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis.

METALS RESULTS

Case Number: V0219-20A
Sample ID: AF104 0/3
Date collected: 2/18/10
Matrix SOIL
Solids, % 89.12
Sample Type: Total

Analyst MG/AJ

		Preparative	Analytical		Reporting	Detection		Date of	Date
Parameter	**CAS Number**	**Method**	**Method**	**Result**	**Limit**	**Limit**	**Units**	**Preparation**	**Analyzed**
Arsenic	7440-38-2	3050B	6010B	1.97	0.63	0.63	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	62.2	0.32	0.32	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.32	0.32	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	10.1	0.32	0.32	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	31.3	0.32	0.32	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	0.683	0.077	0.077	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.63	0.63	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.32	0.32	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis.

METALS RESULTS

Case Number: V0219-20A
Sample ID: AF104 3/6
Date collected: 2/18/10
Matrix SOIL
Solids, % 88.65
Sample Type: Total

Analyst MG/AJ

		Preparative	Analytical		Reporting	Detection		Date of	Date
Parameter	**CAS Number**	**Method**	**Method**	**Result**	**Limit**	**Limit**	**Units**	**Preparation**	**Analyzed**
Arsenic	7440-38-2	3050B	6010B	2.99	0.70	0.70	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	11.6	0.35	0.35	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.35	0.35	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	10.5	0.35	0.35	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	12.0	0.35	0.35	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	ND	0.069	0.069	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.70	0.70	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.35	0.35	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis.

METALS RESULTS

Case Number: V0219-20A
Sample ID AE105 1/3
Date collected 2/18/10
Matrix SOIL
Solids, % 86.40
Sample Type: Total

Analyst MG/AJ

		Preparative	Analytical		Reporting	Detection		Date of	Date
Parameter	**CAS Number**	**Method**	**Method**	**Result**	**Limit**	**Limit**	**Units**	**Preparation**	**Analyzed**
Arsenic	7440-38-2	3050B	6010B	3.24	0.66	0.66	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	99.0	0.33	0.33	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.33	0.33	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	7.20	0.33	0.33	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	154	0.33	0.33	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	0.723	0.076	0.076	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.66	0.66	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.33	0.33	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis.

METALS RESULTS

Case Number: V0219-20A
Sample ID: AE106 3/6
Date collected: 2/18/10
Matrix SOIL
Solids, % 73.31
Sample Type: Total

Analyst MG/AJ

		Preparative	Analytical		Reporting	Detection		Date of	Date
Parameter	**CAS Number**	**Method**	**Method**	**Result**	**Limit**	**Limit**	**Units**	**Preparation**	**Analyzed**
Arsenic	7440-38-2	3050B	6010B	1.29	0.76	0.76	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	23.7	0.38	0.38	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.38	0.38	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	5.60	0.38	0.38	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	3.63	0.38	0.38	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	ND	0.085	0.085	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.76	0.76	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.38	0.38	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis.

METALS RESULTS

Case Number: V0219-20A
Sample ID: AE107 0/3
Date collected: 2/18/10
Matrix: SOIL
Solids, %: 85.23
Sample Type: Total

Analyst MG/AJ

		Preparative	Analytical		Reporting	Detection		Date of	Date
Parameter	**CAS Number**	**Method**	**Method**	**Result**	**Limit**	**Limit**	**Units**	**Preparation**	**Analyzed**
Arsenic	7440-38-2	3050B	6010B	3.52	0.57	0.57	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	36.4	0.28	0.28	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.28	0.28	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	13.2	0.28	0.28	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	140	0.28	0.28	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	0.551	0.078	0.078	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.57	0.57	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.28	0.28	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis.

METALS RESULTS

Case Number: V0219-20A
Sample ID: AE107 3-5.5
Date collected: 2/18/10
Matrix: SOIL
Solids, %: 64.118
Sample Type: Total

Analyst MG/AJ

		Preparative	Analytical		Reporting	Detection		Date of	Date
Parameter	**CAS Number**	**Method**	**Method**	**Result**	**Limit**	**Limit**	**Units**	**Preparation**	**Analyzed**
Arsenic	7440-38-2	3050B	6010B	1.34	0.79	0.79	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	33.6	0.40	0.40	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.40	0.40	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	7.51	0.40	0.40	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	14.3	0.40	0.40	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	ND	0.105	0.105	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.79	0.79	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.40	0.40	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis.

METALS RESULTS

Case Number: V0219-20A
Sample ID: AE108 0/3
Date collected: 2/18/10
Matrix: SOIL
Solids, %: 84.77
Sample Type: Total

Analyst MG/AJ

		Preparative	Analytical		Reporting	Detection		Date of	Date
Parameter	**CAS Number**	**Method**	**Method**	**Result**	**Limit**	**Limit**	**Units**	**Preparation**	**Analyzed**
Arsenic	7440-38-2	3050B	6010B	3.14	0.53	0.53	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	34.6	0.27	0.27	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.27	0.27	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	7.98	0.27	0.27	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	287	0.27	0.27	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	0.544	0.076	0.076	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.53	0.53	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.27	0.27	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis.

METALS RESULTS

Case Number: V0219-20A
Sample ID: AE108 3/6
Date collected: 2/18/10
Matrix: SOIL
Solids, %: 87.13
Sample Type: Total

Analyst MG/AJ

		Preparative	Analytical		Reporting	Detection		Date of	Date
Parameter	**CAS Number**	**Method**	**Method**	**Result**	**Limit**	**Limit**	**Units**	**Preparation**	**Analyzed**
Arsenic	7440-38-2	3050B	6010B	0.81	0.62	0.62	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	17.8	0.31	0.31	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.31	0.31	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	6.24	0.31	0.31	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	5.67	0.31	0.31	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	ND	0.070	0.070	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.62	0.62	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.31	0.31	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis.

METALS RESULTS

Sample ID: Preparation Blank
Matrix: SOIL
Solids, %: 100
Sample Type: Total

Analyst: MG/AJ

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Detection Limit	Units	Date of Preparation	Date Analyzed
Arsenic	7440-38-2	3050B	6010B	ND	0.67	0.67	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	ND	0.33	0.33	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.33	0.33	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	ND	0.33	0.33	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	ND	0.33	0.33	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	ND	0.067	0.067	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.67	0.67	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.33	0.33	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis.

LABORATORY CONTROL SAMPLE RECOVERY

Parameter	True Value	Result	Units	Recovery, %	Internal LCL, %	Internal UCL, %	Date Analyzed
Arsenic	10.0	9.87	mg/kg	99	71	106	3/4/10
Barium	56.7	54.0	mg/kg	95	75	106	3/4/10
Cadmium	56.7	53.8	mg/kg	95	72	104	3/4/10
Chromium	56.7	50.9	mg/kg	90	74	105	3/4/10
Lead	56.7	57.9	mg/kg	102	73	109	3/4/10
Mercury	0.133	0.137	mg/kg	103	83	115	3/5/10
Selenium	10.0	8.40	mg/kg	84	75	100	3/4/10
Silver	33.3	30.6	mg/kg	92	73	127	3/4/10

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Ave.
North Providence, RI 02904
1-888-863-8522

CHAIN OF CUSTODY RECORD

V0219·20A

PROJ NO: 3120
PROJECT NAME/LOCATION: 515 Somerville Ave, Somerville, MA
CLIENT: Action Environmental, 184 Riverview Ave. 1st Floor Waltham, MA 02453
REPORT TO: Robert Houghton
INVOICE TO: Andrew Slemons

DATE	TIME	COMP	GRAB	SAMPLE I.D.	AQUEOUS	SOIL	OTHER	NO. OF CONTAINERS	PRESERVATIVE	EPH + Target PAH	VOCs (8260)	RCRA 8				REMARKS
2/18/10		X		AE101-0/3		X		1	Chill	X		X				
		X		AE101-3/6.5		X		1		X		X				
		X		AE102-0/3		X		1		X		X				
		X		AE102-3/6		X		1		X		X				
		X		AE103-0/3		X		1		X		X				
		X		AE104-0/3		X		1		X		X				
		X		AE104-3/6		X		1		X		X				
		X		AE105-1/3		X		1		X		X				
		X		AE106-3/6		X		1		X		X				
		X		AE107-0/3		X		1		X		X				
		X		AE107-3-5.5		X		1		X		X				
		X		AE108-0/3		X		1		X		X				RCRA 8 metals added
		X		AE108-3/6		X		1		X		X				
			X	AE109-12/15		X		2	HCL/MeOH	X	X					

per Robert Houghton 3/3/10

Sampled by (Signature): R Houghton	Date/Time: 2/18/10	Received by (Signature):	Date/Time:
Relinquished by (Signature): R Houghton	Date/Time: 2/19/10 1100	Received by (Signature): Robert Lee	Date/Time: 2/19/10 11:00
Relinquished by (Signature): Robert Lee	Date/Time: 2/19/10 3:50	Received for Laboratory by (Signature):	Date/Time: 2/19/10 15:50

Laboratory Remarks
Temp. received: ______
Cooled ☐

Special Instructions
List Specific Detection
Limit Requirements
MCP S-1/GW-2/3

Turnaround (Business Days) NORMAL 5

NETLAB

REPORT OF ANALYTICAL RESULTS

NETLAB Case Number V0304-20

Prepared for:

Attn: Glenn Carlson
Action Environmental, Inc.
184 Riverview Ave.
Waltham, MA 02453

Report Date: March 11, 2010

Lab # RI010

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue, North Providence, RI 02904
(401) 353-3420

Total # of Pages 39

ANALYTICAL METHOD REPORT CERTIFICATION FORM

Laboratory Name. New England Testing Laboratory, Inc. Project #. 3120

Project Location 515 Somerville Ave, Somerville, MA RTN[1]:

This form provides certifications for the following data set. V0304-20

Sample Matrices Groundwater (x) Soil/Sediment ( ) Drinking Water ( ) Other:

SW-846 Methods Used	8260B (x)	8151A ( )	8330 ( )	6010B ( )	7470A/1A ( )
	8270C ( )	8081A ( )	VPH (x)	6020 ( )	9014M[2] ( )
	8082 ( )	8021B ( )	EPH (x)	7000 S[3] ( )	Other: ( )

1 List Release Tracking Number (RTN), if known
2 M – SW-846 Method 9014 or MADEP Physiologically Available Cyanide (PAC) Method
3 S – SW-846 Methods 7000 Series List individual method and analyte

An affirmative response to questions A, B, and C is required for "Presumptive Certainty" status

A	Were all samples received by the laboratory in a condition consistent with that described on the Chain-of Custody documentation for the data set?	Yes (X) No[1] ( )
B	Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	Yes (X) No[1] ( )
C	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in Section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No[1] ( ) Not Applicable ( )
D	***VPH and EPH Methods only*** Was the VPH and EPH Method conducted without significant modifications (see Section 11 3 of respective Methods)	Yes (X) No[1] ( )

A response to questions E and F below is required for "Presumptive Certainty" status

E	Were all QC performance standards and recommendations for the specified methods achieved?	Yes (X) No[1] ( )
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?	Yes (X) No[1] ( )

[1]All NO answers must be addressed in an attached Environmental Laboratory case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Position: Laboratory Director

Printed Name: Richard Warila Date: 3/11/2010

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The samples listed in Table 1 were submitted to New England Testing Laboratory on March 4, 2010. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. This report of analytical results pertains only to the sample(s) provide to us by the client which are indicated on the custody record. The case number for this sample submission is V0304-20.

Custody records are included in this report.

Site: 515 Somerville Ave, Somerville, MA

TABLE I, Samples Submitted

Sample ID	Date Sampled	Matrix	Analysis Requested
AE-101	3/3/10	Water	Table II
AE-102	3/3/10	Water	Table II, III
AE-103	3/3/10	Water	Table II
AE-104	3/3/10	Water	Table II
AE-106	3/3/10	Water	Table II
AE-107	3/3/10	Water	Table II
AE-108	3/3/10	Water	Table II, III
AE-109	3/3/10	Water	Table II, III

TABLE II, Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
EPH	NA	**
VPH	NA	*

TABLE III, Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
Volatile Organic Compounds	5030	8260B

These methods are documented in:

*Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MADEP.

**Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MADEP.

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, USEPA/OSW.

NETLAB New England Testing Laboratory, Inc.

CASE NARRATIVE:

Sample Receipt:

No sample for ms/msd/duplicate analysis was supplied. No trip blank was supplied. No field blank was supplied. (This does not qualify the analytical results but does prevent conducting these SW-846 {Chapter 1, Section 3.4} QA Audits).

The samples were all appropriately cooled and preserved upon receipt.

The samples were received in the appropriate containers.

The chain of custody was adequately completed and corresponded to the samples submitted.

EPH:

All samples were extracted and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

VPH:

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

Volatile Orgnaic Compounds:

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

RESULTS: EXTRACTABLE PETROLEUM HYDROCARBONS

Results for EPH analysis are presented in the following section. Each page is electronically signed.

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-101
Method for Target Analytes:		Lab ID		V0304-20
EPH Surrogate Standards		Date Collected		3/3/10
Aliphatic: Chlorooctadecane		Date Received		3/4/10
Aromatic: o-Terphenyl		Date Extracted		3/9/10
EPH Fractionation Surrogates		Date Analyzed		3/10/10,3/11/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				70
Aromatic Surrogate % Recovery				89
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				115
Fractionation Surrogate % Recovery				98
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/11/2010

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-102
Method for Target Analytes:		Lab ID		V0304-20
EPH Surrogate Standards		Date Collected		3/3/10
Aliphatic: Chlorooctadecane		Date Received		3/4/10
Aromatic: o-Terphenyl		Date Extracted		3/9/10
EPH Fractionation Surrogates		Date Analyzed		3/10/10,3/11/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				66
Aromatic Surrogate % Recovery				77
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				107
Fractionation Surrogate % Recovery				83
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/11/2010

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-103
Method for Target Analytes:		Lab ID		V0304-20
EPH Surrogate Standards		Date Collected		3/3/10
Aliphatic: Chlorooctadecane		Date Received		3/4/10
Aromatic: o-Terphenyl		Date Extracted		3/9/10
EPH Fractionation Surrogates		Date Analyzed		3/10/10,3/11/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				57
Aromatic Surrogate % Recovery				64
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				101
Fractionation Surrogate % Recovery				93
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/11/2010

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-104
Method for Target Analytes:		Lab ID		V0304-20
EPH Surrogate Standards		Date Collected		3/3/10
Aliphatic: Chlorooctadecane		Date Received		3/4/10
Aromatic: o-Terphenyl		Date Extracted		3/9/10
EPH Fractionation Surrogates		Date Analyzed		3/10/10,3/11/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(h)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				60
Aromatic Surrogate % Recovery				66
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				96
Fractionation Surrogate % Recovery				87
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/11/2010

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AF-106
Method for Target Analytes:	Lab ID	V0304-20
EPH Surrogate Standards	Date Collected	3/3/10
Aliphatic: Chlorooctadecane	Date Received	3/4/10
Aromatic: o-Terphenyl	Date Extracted	3/9/10
EPH Fractionation Surrogates	Date Analyzed	3/10/10,3/11/10
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	N/A

RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				67
Aromatic Surrogate % Recovery				86
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				111
Fractionation Surrogate % Recovery				92
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/11/2010

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AF-107
Method for Target Analytes:	Lab ID	V0304-20
EPH Surrogate Standards	Date Collected	3/3/10
Aliphatic: Chlorooctadecane	Date Received	3/4/10
Aromatic: o-Terphenyl	Date Extracted	3/9/10
EPH Fractionation Surrogates	Date Analyzed	3/10/10,3/11/10
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	N/A

RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				71
Aromatic Surrogate % Recovery				73
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				71
Fractionation Surrogate % Recovery				44
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/11/2010

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AF-108
Method for Target Analytes:	Lab ID	V0304-20
EPH Surrogate Standards	Date Collected	3/3/10
Aliphatic: Chlorooctadecane	Date Received	3/4/10
Aromatic: o-Terphenyl	Date Extracted	3/9/10
EPH Fractionation Surrogates	Date Analyzed	3/10/10,3/11/10
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	N/A

RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				67
Aromatic Surrogate % Recovery				73
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				100
Fractionation Surrogate % Recovery				80
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/11/2010

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AF-109
Method for Target Analytes:	Lab ID	V0304-20
EPH Surrogate Standards	Date Collected	3/3/10
Aliphatic: Chlorooctadecane	Date Received	3/4/10
Aromatic: o-Terphenyl	Date Extracted	3/9/10
EPH Fractionation Surrogates	Date Analyzed	3/10/10,3/11/10
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	N/A

RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				71
Aromatic Surrogate % Recovery				65
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				63
Fractionation Surrogate % Recovery				55
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

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SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/11/2010

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	Satisfactory Broken Leaking:
Aqueous Preservatives	N/A pH<2 pH>2 Comment:
Temperature	Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	Method Blank
Method for Target Analytes:	Lab ID	V0304-20
EPH Surrogate Standards	Date Collected	NA
Aliphatic: Chlorooctadecane	Date Received	NA
Aromatic: o-Terphenyl	Date Extracted	3/9/10
EPH Fractionation Surrogates	Date Analyzed	3/10/10,3/11/10
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	N/A

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				69
Aromatic Surrogate % Recovery				52
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				55
Fractionation Surrogate % Recovery				45
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? ☒ Yes ☐ No-Details Attached

Were all performance/acceptance standards for the required QA/QC procedures achieved? ☒ Yes ☐ No-Details Attached

Were any significant modifications made to the EPH method, as specified in Section 11.3? ☒ No ☐ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 3/11/2010

```
                 Spike Recovery and RPD Summary Report - WATER

Method       : R:\2\METHODS\ALI.M (Chemstation Integrator)
Title        :
Last Update  : Fri Feb 26 14:01:03 2010
Response via : Initial Calibration

Non-Spiked Sample:  F031004.D

          Spike                                   Spike
          Sample                                  Duplicate Sample
-----------------------------------------------------------------------------
File ID :  F031003.D                             | F031005.D
Sample  :  LEW 3-9                               | LEWD 3-9
Acq Time:  10 Mar 2010  10:18 am                 | 10 Mar 2010  11:26 am
-----------------------------------------------------------------------------

Compound              Sample Spike Spike  Dup  Spike  Dup  RPD    QC Limits
                       Conc  Added  Res   Res  %Rec  %Rec       RPD  % Rec
-----------------------------------------------------------------------------
Nonane               | 0.0 |  40 |  16 |  17 |  40 |  43 |  6 | 25 | 30-140|
Tetradecane          | 0.0 |  40 |  28 |  28 |  70 |  70 |  0 | 25 | 40-140|
Nonadecane           | 0.0 |  40 |  29 |  29 |  73 |  73 |  0 | 25 | 40-140|
Eicosane             | 0.0 |  40 |  31 |  31 |  76 |  76 |  0 | 25 | 40-140|
Octacosane           | 0.0 |  40 |  30 |  29 |  75 |  73 |  3 | 25 | 40-140|
-----------------------------------------------------------------------------

  # - Fails Limit Check


           ALI.M          Thu Mar 11 12:20:53 2010
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              Spike Recovery and RPD Summary Report - WATER

Method       : R:\2\METHODS\ARO.M (Chemstation Integrator)
Title        :
Last Update  : Tue Mar 09 08:36:23 2010
Response via : Initial Calibration

Non-Spiked Sample:  F031028.D

          Spike                                   Spike
          Sample                                  Duplicate Sample
-----------------------------------------------------------------------------
File ID :  F031029.D                             | F031030.D
Sample  :  LEW 3-9 ME                            | LEWD 3-9 ME
Acq Time:  11 Mar 2010   2:02 am                 | 11 Mar 2010   2:46 am
-----------------------------------------------------------------------------

Compound              Sample Spike Spike  Dup  Spike  Dup  RPD    QC Limits
                       Conc  Added  Res   Res  %Rec  %Rec       RPD  % Rec
-----------------------------------------------------------------------------
Naphthalene          | 0.0 |  40 |  24 |  25 |  61 |  63 |  3 | 25 | 40-140|
2 methyl naphthalene| 0.0 |  40 |  24 |  25 |  59 |  61 |  3 | 25 | 40-140|
Acenaphthene         | 0.0 |  40 |  28 |  29 |  70 |  72 |  2 | 25 | 40-140|
Anthracene           | 0.0 |  40 |  38 |  39 |  94 |  97 |  3 | 25 | 40-140|
Pyrene               | 0.0 |  40 |  43 |  45 | 109 | 113 |  4 | 25 | 40-140|
Chrysene             | 0.0 |  40 |  45 |  47 | 113 | 117 |  3 | 25 | 40-140|
-----------------------------------------------------------------------------

  # - Fails Limit Check


              ARO.M          Thu Mar 11 12:21:45 2010
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RESULTS: VOLATILE PETROLEUM HYDROCARBONS

Results for VPH analysis are presented in the following section. Each page is electronically signed.

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container _ Samples rec'd in Methanol: _ covering soil _ not covering soil _ Samples received in air-tight container	mL Methanol/g soil _ 1:1 +/- 25% _ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	AE-101
Method for Target Analytes:			Lab ID	V0304-20
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene			Date Collected	3/3/10
			Date Received	3/4/10
			Date Analyzed	3/8/10
			Dilution Factor	1
			% Moisture (soil)	NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics^{1}	N/A	50	mg/L	<50
Unadjusted C9-C12 Aliphatics^{1}	N/A	50	mg/L	<50
Benzene	C5-C8	5.0	mg/L	<5.0
Ethylbenzene	C9-C12	5.0	mg/L	<5.0
Methyl-tert-butylether	C5-C8	10	mg/L	<10
Naphthalene	N/A	10	mg/L	<10
Toluene	C5-C8	5.0	mg/L	<5.0
m- & p- Xylenes	C9-C12	10	mg/L	<10
o-Xylene	C9-C12	10	mg/L	<10
C5-C8 Aliphatic Hydrocarbons^{1,2}	N/A	50	mg/L	<50
C9-C12 Aliphatic Hydrocarbons^{1,3}	N/A	50	mg/L	<50
C9-C10 Aromatic Hydrocarbons^{1}	N/A	50	mg/L	<50
PID Surrogate % Recovery				103
FID Surrogate % Recovery				101
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 3/11/2010

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container _ Samples rec'd in Methanol: _ covering soil _ not covering soil _ Samples received in air-tight container:	mL Methanol/g soil _ 1:1 +/- 25% _ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	AE-102
Method for Target Analytes:			Lab ID	V0304-20
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene			Date Collected	3/3/10
			Date Received	3/4/10
			Date Analyzed	3/8/10
			Dilution Factor	1
			% Moisture (soil)	NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics^{1}	N/A	50	mg/L	<50
Unadjusted C9-C12 Aliphatics^{1}	N/A	50	mg/L	<50
Benzene	C5-C8	5.0	mg/L	<5.0
Ethylbenzene	C9-C12	5.0	mg/L	<5.0
Methyl-tert-butylether	C5-C8	10	mg/L	<10
Naphthalene	N/A	10	mg/L	<10
Toluene	C5-C8	5.0	mg/L	<5.0
m- & p- Xylenes	C9-C12	10	mg/L	<10
o-Xylene	C9-C12	10	mg/L	<10
C5-C8 Aliphatic Hydrocarbons^{1,2}	N/A	50	mg/L	<50
C9-C12 Aliphatic Hydrocarbons^{1,3}	N/A	50	mg/L	<50
C9-C10 Aromatic Hydrocarbons^{1}	N/A	50	mg/L	<50
PID Surrogate % Recovery				103
FID Surrogate % Recovery				102
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 3/11/2010

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container _ Samples rec'd in Methanol: _ covering soil _ not covering soil _ Samples received in air-tight container:	mL Methanol/g soil _ 1:1 +/- 25% _ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	AE-103
Method for Target Analytes:			Lab ID	V0304-20
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene			Date Collected	3/3/10
			Date Received	3/4/10
			Date Analyzed	3/8/10
			Dilution Factor	1
			% Moisture (soil)	NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics^{1}	N/A	50	mg/L	<50
Unadjusted C9-C12 Aliphatics^{1}	N/A	50	mg/L	<50
Benzene	C5-C8	5.0	mg/L	<5.0
Ethylbenzene	C9-C12	5.0	mg/L	<5.0
Methyl-tert-butylether	C5-C8	10	mg/L	<10
Naphthalene	N/A	10	mg/L	<10
Toluene	C5-C8	5.0	mg/L	<5.0
m- & p- Xylenes	C9-C12	10	mg/L	<10
o-Xylene	C9-C12	10	mg/L	<10
C5-C8 Aliphatic Hydrocarbons^{1,2}	N/A	50	mg/L	<50
C9-C12 Aliphatic Hydrocarbons^{1,3}	N/A	50	mg/L	<50
C9-C10 Aromatic Hydrocarbons^{1}	N/A	50	mg/L	<50
PID Surrogate % Recovery				102
FID Surrogate % Recovery				101
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 3/11/2010

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container _ Samples rec'd in Methanol: _ covering soil _ not covering soil _ Samples received in air-tight container:	mL Methanol/g soil _ 1:1 +/- 25% _ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	AE-104
Method for Target Analytes:			Lab ID	V0304-20
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene			Date Collected	3/3/10
			Date Received	3/4/10
			Date Analyzed	3/8/10
			Dilution Factor	1
			% Moisture (soil)	NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics^{1}	N/A	50	mg/L	<50
Unadjusted C9-C12 Aliphatics^{1}	N/A	50	mg/L	<50
Benzene	C5-C8	5.0	mg/L	<5.0
Ethylbenzene	C9-C12	5.0	mg/L	<5.0
Methyl-tert-butylether	C5-C8	10	mg/L	<10
Naphthalene	N/A	10	mg/L	<10
Toluene	C5-C8	5.0	mg/L	<5.0
m- & p- Xylenes	C9-C12	10	mg/L	<10
o-Xylene	C9-C12	10	mg/L	<10
C5-C8 Aliphatic Hydrocarbons^{1,2}	N/A	50	mg/L	<50
C9-C12 Aliphatic Hydrocarbons^{1,3}	N/A	50	mg/L	<50
C9-C10 Aromatic Hydrocarbons^{1}	N/A	50	mg/L	<50
PID Surrogate % Recovery				103
FID Surrogate % Recovery				104
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 3/11/2010

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-106
Method for Target Analytes:		Lab ID		V0304-20
VPH Surrogate Standards		Date Collected		3/3/10
PID: 2,5- Dibromotoluene		Date Received		3/4/10
FID: 2,5- Dibromotoluene		Date Analyzed		3/8/10
		Dilution Factor		1
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics^1	N/A	50	mg/L	<50
Unadjusted C9-C12 Aliphatics^1	N/A	50	mg/L	<50
Benzene	C5-C8	5.0	mg/L	<5.0
Ethylbenzene	C9-C12	5.0	mg/L	<5.0
Methyl-tert-butylether	C5-C8	10	mg/L	<10
Naphthalene	N/A	10	mg/L	<10
Toluene	C5-C8	5.0	mg/L	<5.0
m- & p- Xylenes	C9-C12	10	mg/L	<10
o-Xylene	C9-C12	10	mg/L	<10
C5-C8 Aliphatic Hydrocarbons^{1,2}	N/A	50	mg/L	<50
C9-C12 Aliphatic Hydrocarbons^{1,3}	N/A	50	mg/L	<50
C9-C10 Aromatic Hydrocarbons^1	N/A	50	mg/L	<50
PID Surrogate % Recovery				106
FID Surrogate % Recovery				103
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 3/11/2010

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-107
Method for Target Analytes:		Lab ID		V0304-20
VPH Surrogate Standards		Date Collected		3/3/10
PID: 2,5- Dibromotoluene		Date Received		3/4/10
FID: 2,5- Dibromotoluene		Date Analyzed		3/8/10
		Dilution Factor		1
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics^1	N/A	50	mg/L	<50
Unadjusted C9-C12 Aliphatics^1	N/A	50	mg/L	<50
Benzene	C5-C8	5.0	mg/L	<5.0
Ethylbenzene	C9-C12	5.0	mg/L	<5.0
Methyl-tert-butylether	C5-C8	10	mg/L	<10
Naphthalene	N/A	10	mg/L	<10
Toluene	C5-C8	5.0	mg/L	<5.0
m- & p- Xylenes	C9-C12	10	mg/L	<10
o-Xylene	C9-C12	10	mg/L	<10
C5-C8 Aliphatic Hydrocarbons^{1,2}	N/A	50	mg/L	<50
C9-C12 Aliphatic Hydrocarbons^{1,3}	N/A	50	mg/L	<50
C9-C10 Aromatic Hydrocarbons^1	N/A	50	mg/L	<50
PID Surrogate % Recovery				94
FID Surrogate % Recovery				89
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 3/11/2010

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice _X_ Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-108
Method for Target Analytes:		Lab ID		V0304-20
VPH Surrogate Standards		Date Collected		3/3/10
PID: 2,5- Dibromotoluene		Date Received		3/4/10
FID: 2,5- Dibromotoluene		Date Analyzed		3/8/10
		Dilution Factor		1
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics^1	N/A	50	mg/L	<50
Unadjusted C9-C12 Aliphatics^1	N/A	50	mg/L	<50
Benzene	C5-C8	5.0	mg/L	<5.0
Ethylbenzene	C9-C12	5.0	mg/L	<5.0
Methyl-tert-butylether	C5-C8	10	mg/L	<10
Naphthalene	N/A	10	mg/L	<10
Toluene	C5-C8	5.0	mg/L	<5.0
m- & p- Xylenes	C9-C12	10	mg/L	<10
o-Xylene	C9-C12	10	mg/L	<10
C5-C8 Aliphatic Hydrocarbons^{1,2}	N/A	50	mg/L	<50
C9-C12 Aliphatic Hydrocarbons^{1,3}	N/A	50	mg/L	<50
C9-C10 Aromatic Hydrocarbons^1	N/A	50	mg/L	<50
PID Surrogate % Recovery				98
FID Surrogate % Recovery				93
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 3/11/2010

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-109
Method for Target Analytes:		Lab ID		V0304-20
VPH Surrogate Standards		Date Collected		3/3/10
PID: 2,5- Dibromotoluene		Date Received		3/4/10
FID: 2,5- Dibromotoluene		Date Analyzed		3/8/10
		Dilution Factor		1
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics^1	N/A	50	mg/L	<50
Unadjusted C9-C12 Aliphatics^1	N/A	50	mg/L	187
Benzene	C5-C8	5.0	mg/L	<5.0
Ethylbenzene	C9-C12	5.0	mg/L	<5.0
Methyl-tert-butylether	C5-C8	10	mg/L	<10
Naphthalene	N/A	10	mg/L	<10
Toluene	C5-C8	5.0	mg/L	<5.0
m- & p- Xylenes	C9-C12	10	mg/L	<10
o-Xylene	C9-C12	10	mg/L	<10
C5-C8 Aliphatic Hydrocarbons^{1,2}	N/A	50	mg/L	<50
C9-C12 Aliphatic Hydrocarbons^{1,3}	N/A	50	mg/L	148
C9-C10 Aromatic Hydrocarbons^1	N/A	50	mg/L	<50
PID Surrogate % Recovery				104
FID Surrogate % Recovery				102
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 3/11/2010

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	_ Satisfactory _ Bmken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment.	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	_ Received on Ice _ Received at 4° C _ Other:		

VPH ANALYTICAL RESULTS

Method for Ranges MADEP VPH 01/98		Client ID		Method Blank
Method for Target Analytes:		Lab ID		V0304-20
VPH Surrogate Standards		Date Collected		NA
PID 2,5- Dibromotoluene		Date Received		NA
FID 2,5- Dibromotoluene		Date Analyzed		3/8/10
		Dilution Factor		1
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	mg/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	mg/L	<50
Benzene	C5-C8	5.0	mg/L	<5.0
Ethylbenzene	C9-C12	5.0	mg/L	<5.0
Methyl-tert-butylether	C5-C8	10	mg/L	<10
Naphthalene	N/A	10	mg/L	<10
Toluene	C5-C8	5.0	mg/L	<5.0
m- & p- Xylenes	C9-C12	10	mg/L	<10
o-Xylene	C9-C12	10	mg/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	mg/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	mg/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	mg/L	<50
PID Surrogate % Recovery				105
FID Surrogate % Recovery				104
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 3/11/2010

```
           Spike Recovery and RPD Summary Report - WATER

Method       : C:\HPCHEM\1\METHODS\VPHQUANT.M (Chemstation Integrator)
Title        :
Last Update  : Wed Feb 24 10:32:31 2010
Response via : Initial Calibration

Non-Spiked Sample:  D030806.D

          Spike                                Spike
          Sample                               Duplicate Sample
--------------------------------------------------------------------------
File ID :  D030803.D                         | D030804.D
Sample  :  VLCS0308                          | VLCSD0308
Acq Time:   8 Mar 20110    8:28 am            |  8 Mar 20110    9:10 am
--------------------------------------------------------------------------

Compound                 Sample Spike Spike  Dup  Spike  Dup  RPD    QC Limits
                          Conc  Added  Res   Res  %Rec  %Rec       RPD  % Rec
--------------------------------------------------------------------------
Pentane                | 0.0 |  50 |  54 |  54 | 109 | 108 |  1 | 25 | 70-130|
2-Methyl pentane       | 0.0 |  50 |  51 |  48 | 101 |  96 |  6 | 25 | 70-130|
2,2,4-trimethylpenta| 0.0 |  50 |  48 |  47 |  95 |  95 |  1 | 25 | 70-130|
MTBE #2                | 0.0 |  50 |  47 |  52 |  93 | 103 | 10 | 25 | 70-130|
Benzene #2             | 0.0 |  50 |  49 |  51 |  98 | 101 |  4 | 25 | 70-130|
Toluene #2             | 0.0 |  50 |  42 |  43 |  84 |  86 |  3 | 25 | 70-130|
Ethylbenzene #2        | 0.0 |  50 |  48 |  48 |  96 |  96 |  0 | 25 | 70-130|
M&P Xylene #2          | 0.0 | 100 |  84 |  84 |  84 |  84 |  1 | 25 | 70-130|
O Xylene #2            | 0.0 |  50 |  39 |  40 |  78 |  80 |  4 | 25 | 70-130|
Naphthlene             | 0.0 |  50 |  58 |  55 | 115 | 111 |  4 | 25 | 70-130|
--------------------------------------------------------------------------

  # - Fails Limit Check


          VPHQUANT.M     Tue Mar 09 14:04:23 2010
```

RESULTS: VOLATILE ORGANIC COMPOUNDS

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Organics Analysis Department certifies that the samples included in this section have been prepared and analyzed using the procedures cited and that the results have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0304-20
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials: HC

Client Name: Action Environmental, Inc
Lab Sample ID: AE-102
Lab File ID: G17761.D
Date Sempled: 3/3/2010
Date Analyzed: 3/11/2010
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	10	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethene	1.0	U
71-55-6	1,1,1-Trichloroethene	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0304-20
Method: 8260
Matrix. (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials: HC

Client Name: Action Environmental, Inc
Lab Sample ID: AE-102
Lab File ID: G17761.D
Date Sampled: 3/3/2010
Date Analyzed: 3/11/2010
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	p-Isopropyltoluene	1.0	U
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	5.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0304-20
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials: HC

Client Name: Action Environmental, Inc
Lab Sample ID: AE-108
Lab File ID: G17762.D
Date Sampled: 3/3/2010
Date Analyzed: 3/11/2010
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	10	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0304-20
Method 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials: HC

Client Name: Action Environmental, Inc
Lab Sample ID: AE-108
Lab File ID: G17762.D
Date Sampled: 3/3/2010
Date Analyzed: 3/11/2010
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	p-Isopropyltoluene	1.0	U
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	5.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0304-20
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials: HC

Client Name: Action Environmental, Inc
Lab Sample ID: AE-109
Lab File ID: G17763.D
Date Sampled: 3/3/2010
Date Analyzed: 3/11/2010
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	10	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No. V0304-20
Method 8260
Matrix (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume (uL)
Analyst's Initials HC

Client Name. Action Environmental, Inc
Lab Sample ID: AE-109
Lab File ID: G17763.D
Date Sampled 3/3/2010
Date Analyzed. 3/11/2010
Dilution Factor 1.0
Soil Aliquot Volume (uL)

CAS NO.	COMPOUND	UNITS: ug/L	O
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	2.5	
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	p-Isopropyltoluene	1.0	U
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	5.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0304-20
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials: HC

Client Name: Action Environmental, Inc
Lab Sample ID: VBLK100311
Lab File ID: G17760.D
Date Sampled: 3/3/2010
Date Analyzed: 3/11/2010
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	O
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	10	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0304-20
Method 8260
Matrix: (soil/water) WATER
Sample wt/vol 5.0 (g/ml) ML
% Moisture
Soil Extract Volume (uL)
Analyst's Initials. HC

Client Name: Action Environmental, Inc
Lab Sample ID: VBLK100311
Lab File ID: G17760.D
Date Sampled: 3/3/2010
Date Analyzed: 3/11/2010
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	O
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	p-Isopropyltoluene	1.0	U
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	5.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

2A
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: New England Testing Lab Contract: 515 Somerville Av
Lab Code: RI010 Case No.: V0304-20 SAS No.: SDG No.: Action Env

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	VLCS100311	80	119	114	0
02	VBLK100311	116	108	106	0
03	AE-102	99	118	119	0
04	AE-108	90	103	120	0
05	AE-109	113	103	117	0

			QC LIMITS
SMC1	=	4-Bromofluorobenzene	(70-130)
SMC2	=	Toluene-D8	(70-130)
SMC3	=	1,2-Dichloroethane-D4	(70-130)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D System Monitoring Compound diluted out

New England Testing Laboratory, Inc

page 1 of 1

FORM II VOA-1

Volatile Organics Laboratory Control Spike

Date Analyzed: 03/11/2010

Sample ID: VLCS100311

Compound	Spike Added (ug/L)	Spike Result (ug/L)	Recovery, %	Lower Control Limit, %	Upper Control Limit, %
1,1-Dichloroethene	50.0	59 2	118	70	130
Benzene	50.0	62.3	125	70	130
Trichloroethene	50.0	45.6	91	70	130
Toluene	50 0	48.6	97	70	130
Chlorobenzene	50.0	42.6	85	70	130

V0304-20

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Ave.
North Providence, RI 02904
1-888-863-8522

CHAIN OF CUSTODY RECORD

PROJ NO: 3120

PROJECT NAME/LOCATION: 515 Somerville Ave, Somerville, MA

CLIENT: Action Environmental

REPORT TO: Glenn Carlson + Robert Houghton

INVOICE TO: Andrew Clemens

DATE	TIME	COMP	GRAB	SAMPLE I.D.	AQUEOUS	SOIL	OTHER	NO OF CONTAINERS	PRESERVATIVE	EPH	VPH	VOC (8260)	REMARKS
3-3-10	12:26		X	AE-101	X			3	HCl	X	X		
	11:20		X	AE-102	X			3	HCl	X	X	X	
	10:55		X	AE-103	X			3	HCl	X	X		
	9:20		X	AE-104	X			3	HCl	X	X		
	9:40		X	AE-106	X			3	HCl	X	X		
	10:25		X	AE-107	X			3	HCl	X	X		
	10:05		X	AE-108	X			3	HCl	X	X	X	
	11:50		X	AE-109	X			3	HCl	X	X	X	

Sampled by (Signature)	Date/Time 3/3/10 1:50	Received by (Signature)	Date/Time	Laboratory Remarks: U Temp. received: ___ Cooled X
Relinquished by (Signature) R.	Date/Time 3/4/10 1030	Received by (Signature) Robert Rue	Date/Time 3/4/10 10:30	Special Instructions List Specific Detection Limit Requirements MCP GW 2-3
Relinquished by (Signature) Robert Rue	Date/Time 3/4/10 3:40	Received for Laboratory by (Signature)	Date/Time 3/4/10 15:40	Turnaround (Business Days) NORMAL 5 Bus Days

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2/25/2010

MICROVISION LABORATORIES, INC

Action Environmental
184 Riverview Ave.
1st Floor
Waltham, MA 02453
Attn: Robert Houghton

Project#: 3120
Project Name: World 115 Nominee Trust
Job #: 3227

Dear Robert:

This report covers the methods and findings of the Coal/Coal Ash analysis that MicroVision Laboratories, Inc. conducted on the two (2) soil samples from your project# 3120, which you submitted for this testing. The purpose of this analysis was to detect and document any coal, coal ash or wood ash that may be present in the submitted soil samples by use of a combination of microscopy tests including SEM/EDS, PLM, and macroscopic inspection.

Methods:

The samples were dried and examined by eye and under the stereomicroscope for any suspect dark components to the soil. Dark suspect particles were separated from the soil samples and prepared for examination by Polarized Light Microscopy (PLM) and Scanning Electron Microscopy with Energy Dispersive X-Ray Spectroscopy (SEM/EDS).

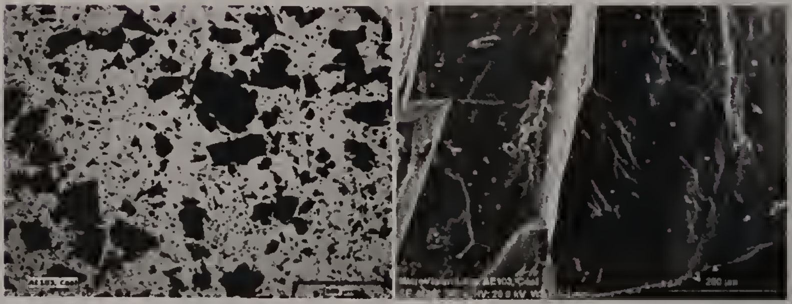
For the PLM examination the suspect particle types detected in the samples, were ground in a mortar and pestle, mounted on glass slides in immersion oil (n=1.515) and covered with glass cover slips. These samples were then examined at various magnifications and digital images were taken.

For the SEM examination the suspect particle types were mounted on an aluminum analysis stub with double sided adhesive tape, coated with evaporated graphite and examined under the SEM by EDS to obtain elemental data in the form of EDS spectra. Digital images were taken of the samples at various magnifications with the SEM.

Findings:

Sample AE103 Urban Fill

The soil in this sample was a yellow-brown color and contained two (2) suspect particle types. Particle type 1 consisted of eighteen (18) shiny, black grains approximately 1mm-4mm in diameter. The PLM examination indicated this particle type to be consistent with coal. The PLM and SEM images of this particle type show the angular edges and typical conchoidal fractures found in coal.

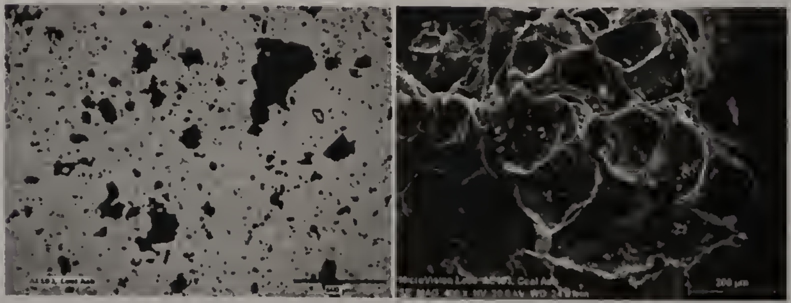


Sample: AE103 Urban Fill, Coal
PLM Image

Sample: AE103 Urban Fill, Coal
SEM Image

The EDS analysis confirmed that this particle type is coal. The EDS spectrum for this particle shows a strong peak concentration of carbon, with lower peak concentrations of oxygen, and sulfur. See Appendix A for the average composition EDS spectra of this particle type.

Particle type 2 consisted of over thirty (30+) dark porous grains approximately 2mm-5mm in diameter. The PLM examination indicated this particle type to be consistent with coal ash. The PLM and SEM images show the irregular surface with spherical gas voids that formed during combustion of the coal ash.



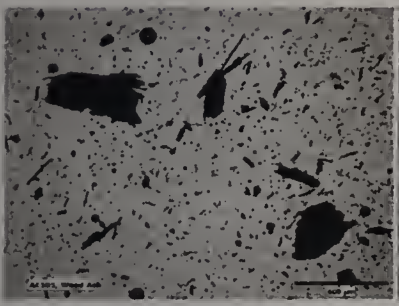
Sample: AE103 Urban Fill, Coal Ash
PLM Image

Sample: AE103 Urban Fill, Coal Ash
SEM Image

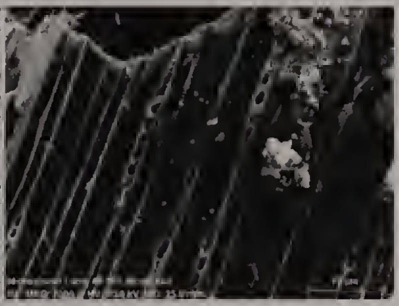
The EDS spectrum for this particle shows strong to moderate peak concentrations of carbon, oxygen, aluminum, and silicon with lower peak concentrations of sulfur, iron and copper. See Appendix B for the average composition EDS spectra of the coal ash detected in this sample.

Sample AE105 Urban Fill

The soil in this sample was a light brown color and contained one (1) suspect particle type. This particle type consisted of seven (7) friable, black grains approximately 1mm-2mm in length. The PLM examination indicated this particle type to be consistent with wood ash. The PLM and SEM photos show the cellular structure typical of wood still present in these grains.



Sample: AE105 Urban Fill, Wood Ash
PLM Image



Sample: AE105 Urban Fill, Wood Ash
SEM Image

The EDS spectrum for this particle type shows peak concentrations of carbon, oxygen, and calcium. See Appendix C for the average composition EDS spectra of the wood ash detected in this sample.

Results Summary Table:

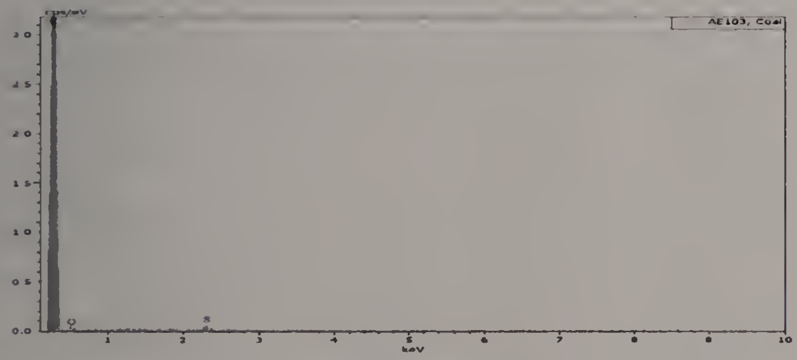
Sample Name	Material Detected
AE103 Urban Fill	Coal (moderate), Coal Ash (heavy)
AE105 Urban Fill	Wood Ash (light)

The concentrations of the particle types detected in these samples are listed in parenthesis in the table above and are based on the number of particles found and the relative difficultly in finding them. The concentration information is listed for informational purposes only and has no bearing on exemption status. Please let me know if you have any questions about this analysis or if there is anything else I can do for you.

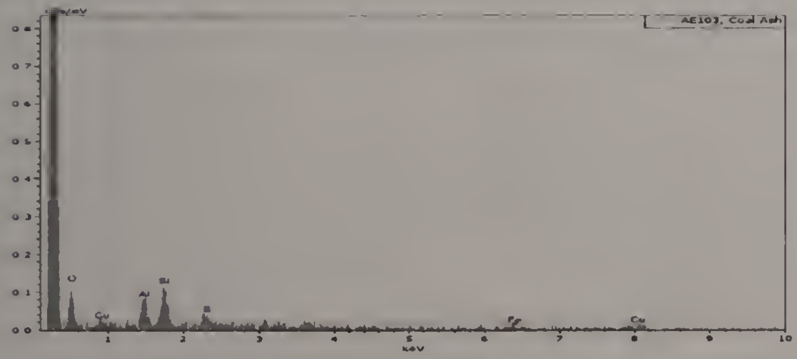
Sincerely,

Denise Weidler
Microscopist

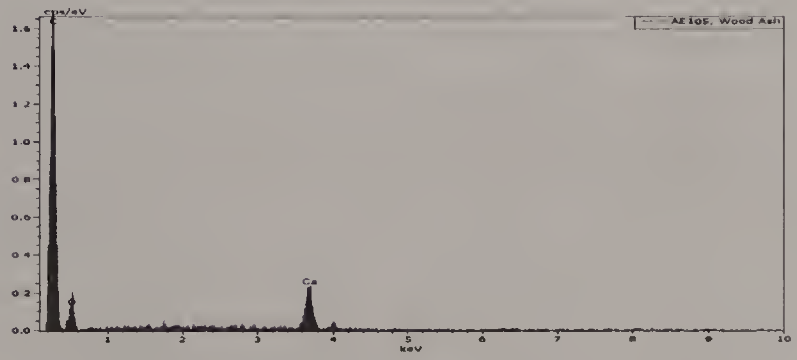
John H. Knowles
John H. Knowles
President



Appendix A, EDS Spectrum
Sample: AE103 Urban Fill, Coal



Appendix B, EDS Spectrum
Sample: AE103 Urban Fill, Coal Ash



Appendix C, EDS Spectrum
Sample: AE105 Urban Fill, Wood Ash

NETLAB

REPORT OF ANALYTICAL RESULTS

NETLAB Case Number V0219-20

Prepared for:

Attn: Robert Houghton
Action Environmental, Inc.
184 Riverview Ave.
Waltham, MA 02453

Report Date: March 1, 2010

Lab # RI010

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue, North Providence, RI 02904
(401) 353-3420

ANALYTICAL METHOD REPORT CERTIFICATION FORM

Laboratory Name: New England Testing Laboratory, Inc.				Project #: 3120	
Project Location: 515 Somerville Avenue, Somerville MA				RTN[1]:	
This form provides certifications for the following data set: V0219-20					
Sample Matrices: Groundwater ( ) Soil/Sediment (x) Drinking Water ( ) Other:					
SW-846 Methods Used	8260B (x)	8151A ( )	8330 ( )	6010B ( )	7470A/1A ( )
	8270C ( )	8081A ( )	VPH ( )	6020 ( )	9014M[2] ( )
	8082 ( )	8021B ( )	EPH (x)	7000 S[3] ( )	Other: ( )
	1 List Release Tracking Number (RTN), if known 2 M – SW-846 Method 9014 or MADEP Physiologically Available Cyanide (PAC) Method 3 S – SW-846 Methods 7000 Series List individual method and analyte				

	An affirmative response to questions A, B, and C is required for "Presumptive Certainty" **status**	
A	Were all samples received by the laboratory in a condition consistent with that described on the Chain-of Custody documentation for the data set?	Yes (X) No[1] ( )
B	Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in e narrative QC data thet did not meet appropriate performance standards or guidelines?	Yes (X) No[1] ( )
C	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in Section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No[1] ( ) Not Applicable ( )
D	***VPH and EPH Methods only***: Was the VPH and EPH Method conducted without significant modifications (see Section 11.3 of respective Methods)	Yes (X) No[1] ( )
	A response to questions E and F below is required for "Presumptive Certainty" **status**	
E	Were all QC performence standards and recommendations for the specified methods achieved?	Yes (X) No[1] ( )
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?	Yes (X) No[1] ( )

[1] *All NO answers must be eddressed in an attached Environmental Laboratory case narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Position: Laboratory Director
Printed Name: Richard Warila Date: 3/1/2010

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The samples listed in Table I were submitted to New England Testing Laboratory on February 19, 2010. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. This report of analytical results pertains only to sample(s) provided to us by the client which are indicated on t he custody record. The case number for this sample submission is V0219-20.

Custody records are included in this report.

Site: 515 Somerville Avenue, Somerville, MA

TABLE I, Samples Submitted

Sample ID	Date Sampled	Matrix	Analysis Requested
AE101-0/3	2/18/10	Soil	Table II
AE101-3/6.5	2/18/10	Soil	Table II
AE102-0/3	2/18/10	Soil	Table II
AE102-3/6	2/18/10	Soil	Table II
AE103-0/3	2/18/10	Soil	Table II
AE104-0/3	2/18/10	Soil	Table II
AE104-3/6	2/18/10	Soil	Table II
AE105-1/3	2/18/10	Soil	Table II
AE106-3/6	2/18/10	Soil	Table II
AE107-0/3	2/18/10	Soil	Table II
AE107-3-5.5	2/18/10	Soil	Table II
AE108-0/3	2/18/10	Soil	Table II
AE108-3.6	2/18/10	Soil	Table II
AE109-12/15	2/18/10	Soil	Table II, III

TABLE II, Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
EPH	NA	**

TABLE III, Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
Volatile Organic Compounds	5030B	8260B

These methods are documented in:

*Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MADEP

**Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MADEP.

CASE NARRATIVE:

Sample Receipt:

No sample for ms/msd duplicate analysis was supplied. No trip blank was supplied. No field blank was supplied y. (This does not qualify the analytical results but does prevent conducting these SW-846 {Chapter 1, Section 3.4} QA Audits.)

The samples were all appropriately cooled and preserved upon receipt.

The samples were received in the appropriate containers.

The chain of custody was adequately completed and corresponded to the samples submitted.

EPH:

All samples were extracted and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

Volatiles:

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

RESULTS: EXTRACTABLE PETROLEUM HYDROCARBONS

Results for EPH analysis are presented in the following section. Each page is electronically signed.

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE101-0/3
Method for Target Analytes:		Lab ID		V0219-20
EPH Surrogate Standards		Date Collected		2/18/10
Aliphatic: Chlorooctadecane		Date Received		2/19/10
Aromatic: o-Terphenyl		Date Extracted		2/25/10
EPH Fractionation Surrogates		Date Analyzed		2/25/10,2/26/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		8.92
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		10.9	mg/Kg	<10.9
Diesel PAH Analytes	Naphthalene	0.27	mg/Kg	<0.27
	2-Methylnaphthalene	0.27	mg/Kg	<0.27
	Phenanthrene	0.27	mg/Kg	<0.27
	Acenaphthylene	0.27	mg/Kg	<0.27
Other Target PAH Analytes	Acenaphthene	0.27	mg/Kg	<0.27
	Fluorene	0.27	mg/Kg	<0.27
	Anthracene	0.27	mg/Kg	<0.27
	Fluoranthene	0.27	mg/Kg	<0.27
	Pyrene	0.27	mg/Kg	<0.27
	Benzo(a)anthracene	0.27	mg/Kg	<0.27
	Chrysene	0.27	mg/Kg	<0.27
	Benzo(b)fluoranthene	0.27	mg/Kg	<0.27
	Benzo(k)fluoranthene	0.27	mg/Kg	<0.27
	Benzo(a)pyrene	0.27	mg/Kg	<0.27
	Indeno(1,2,3-cd)pyrene	0.27	mg/Kg	<0.27
	Dibenzo(a,h)anthracene	0.27	mg/Kg	<0.27
	Benzo(g,h,i)perylene	0.27	mg/Kg	<0.27
C9-C18 Aliphatic Hydrocarbons[1]		10.9	mg/Kg	<10.9
C19-C36 Aliphatic Hydrocarbons[1]		10.9	mg/Kg	<10.9
C11-C22 Aromatic Hydrocarbons[1,2]		10.9	mg/Kg	<10.9
Aliphatic Surrogate % Recovery				59
Aromatic Surrogate % Recovery				81
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				88
Fractionation Surrogate % Recovery				73
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached

Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached

Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE ____________ POSITION Laboratory Director

PRINTED NAME Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE101-3/6.5
Method for Target Analytes:		Lab ID		V0219-20
EPH Surrogate Standards		Date Collected		2/18/10
Aliphatic: Chlorooctadecane		Date Received		2/19/10
Aromatic: o-Terphenyl		Date Extracted		2/25/10
EPH Fractionation Surrogates		Date Analyzed		2/25/10, 2/26/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		8.24
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		10.7	mg/Kg	25.8
Diesel PAH Analytes	Naphthalene	0.27	mg/Kg	0.3
	2-Methylnaphthalene	0.27	mg/Kg	<0.27
	Phenanthrene	0.27	mg/Kg	<0.27
	Acenaphthylene	0.27	mg/Kg	<0.27
Other Target PAH Analytes	Acenaphthene	0.27	mg/Kg	<0.27
	Fluorene	0.27	mg/Kg	<0.27
	Anthracene	0.27	mg/Kg	<0.27
	Fluoranthene	0.27	mg/Kg	<0.27
	Pyrene	0.27	mg/Kg	<0.27
	Benzo(a)anthracene	0.27	mg/Kg	<0.27
	Chrysene	0.27	mg/Kg	<0.27
	Benzo(b)fluoranthene	0.27	mg/Kg	<0.27
	Benzo(k)fluoranthene	0.27	mg/Kg	<0.27
	Benzo(a)pyrene	0.27	mg/Kg	<0.27
	Indeno(1,2,3-cd)pyrene	0.27	mg/Kg	<0.27
	Dibenzo(a,h)anthracene	0.27	mg/Kg	<0.27
	Benzo(g,h,i)perylene	0.27	mg/Kg	<0.27
C9-C18 Aliphatic Hydrocarbons[1]		10.7	mg/Kg	<10.7
C19-C36 Aliphatic Hydrocarbons[1]		10.7	mg/Kg	<10.7
C11-C22 Aromatic Hydrocarbons[1,2]		10.7	mg/Kg	25.5
Aliphatic Surrogate % Recovery				48
Aromatic Surrogate % Recovery				73
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				83
Fractionation Surrogate % Recovery				50
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached

Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached

Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE ____________ POSITION Laboratory Director

PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE102-0/3
Method for Target Analytes:		Lab ID		V0219-20
EPH Surrogate Standards		Date Collected		2/18/10
Aliphatic: Chlorooctadecane		Date Received		2/19/10
Aromatic: o-Terphenyl		Date Extracted		2/25/10
EPH Fractionation Surrogates		Date Analyzed		2/25/10 ,2/26/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		9.99
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		10.8	mg/Kg	27.2
Diesel PAH Analytes	Naphthalene	0.27	mg/Kg	<0.27
	2-Methylnaphthalene	0.27	mg/Kg	<0.27
	Phenanthrene	0.27	mg/Kg	0.5
	Acenaphthylene	0.27	mg/Kg	<0.27
Other Target PAH Analytes	Acenaphthene	0.27	mg/Kg	<0.27
	Fluorene	0.27	mg/Kg	<0.27
	Anthracene	0.27	mg/Kg	<0.27
	Fluoranthene	0.27	mg/Kg	0.9
	Pyrene	0.27	mg/Kg	1.0
	Benzo(a)anthracene	0.27	mg/Kg	0.5
	Chrysene	0.27	mg/Kg	0.6
	Benzo(b)fluoranthene	0.27	mg/Kg	0.5
	Benzo(k)fluoranthene	0.27	mg/Kg	0.4
	Benzo(a)pyrene	0.27	mg/Kg	0.4
	Indeno(1,2,3-cd)pyrene	0.27	mg/Kg	<0.27
	Dibenzo(a,h)anthracene	0.27	mg/Kg	<0.27
	Benzo(g,h,i)perylene	0.27	mg/Kg	<0.27
C9-C18 Aliphatic Hydrocarbons[1]		10.8	mg/Kg	<10.8
C19-C36 Aliphatic Hydrocarbons[1]		10.8	mg/Kg	<10.8
C11-C22 Aromatic Hydrocarbons[1,2]		10.8	mg/Kg	<22.4
Aliphatic Surrogate % Recovery				71
Aromatic Surrogate % Recovery				96
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				98
Fractionation Surrogate % Recovery				99
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE102-3/6
Method for Target Analytes:		Lab ID		V0219-20
EPH Surrogate Standards		Date Collected		2/18/10
Aliphatic: Chlorooctadecane		Date Received		2/19/10
Aromatic: o-Terphenyl		Date Extracted		2/25/10
EPH Fractionation Surrogates		Date Analyzed		2/25/10, 2/26/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		11.48
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		11.0	mg/Kg	<11.0
Diesel PAH Analytes	Naphthalene	0.28	mg/Kg	<0.28
	2-Methylnaphthalene	0.28	mg/Kg	<0.28
	Phenanthrene	0.28	mg/Kg	<0.28
	Acenaphthylene	0.28	mg/Kg	<0.28
Other Target PAH Analytes	Acenaphthene	0.28	mg/Kg	<0.28
	Fluorene	0.28	mg/Kg	<0.28
	Anthracene	0.28	mg/Kg	<0.28
	Fluoranthene	0.28	mg/Kg	<0.28
	Pyrene	0.28	mg/Kg	<0.28
	Benzo(a)anthracene	0.28	mg/Kg	<0.28
	Chrysene	0.28	mg/Kg	<0.28
	Benzo(b)fluoranthene	0.28	mg/Kg	<0.28
	Benzo(k)fluoranthene	0.28	mg/Kg	<0.28
	Benzo(a)pyrene	0.28	mg/Kg	<0.28
	Indeno(1,2,3-cd)pyrene	0.28	mg/Kg	<0.28
	Dibenzo(a,h)anthracene	0.28	mg/Kg	<0.28
	Benzo(g,h,i)perylene	0.28	mg/Kg	<0.28
C9-C18 Aliphatic Hydrocarbons[1]		11.0	mg/Kg	<11.0
C19-C36 Aliphatic Hydrocarbons[1]		11.0	mg/Kg	<11.0
C11-C22 Aromatic Hydrocarbons[1,2]		11.0	mg/Kg	<11.0
Aliphatic Surrogate % Recovery				63
Aromatic Surrogate % Recovery				93
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				106
Fractionation Surrogate % Recovery				73
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE103-0/3
Method for Target Analytes:		Lab ID		V0219-20
EPH Surrogate Standards		Date Collected		2/18/10
Aliphatic: Chlorooctadecane		Date Received		2/19/10
Aromatic: o-Terphenyl		Date Extracted		2/25/10
EPH Fractionation Surrogates		Date Analyzed		2/25/10, 2/26/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		17.01
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		12.0	mg/Kg	17.4
Diesel PAH Analytes	Naphthalene	0.30	mg/Kg	<0.30
	2-Methylnaphthalene	0.30	mg/Kg	<0.30
	Phenanthrene	0.30	mg/Kg	<0.30
	Acenaphthylene	0.30	mg/Kg	<0.30
Other Target PAH Analytes	Acenaphthene	0.30	mg/Kg	<0.30
	Fluorene	0.30	mg/Kg	<0.30
	Anthracene	0.30	mg/Kg	<0.30
	Fluoranthene	0.30	mg/Kg	0.50
	Pyrene	0.30	mg/Kg	0.60
	Benzo(a)anthracene	0.30	mg/Kg	0.30
	Chrysene	0.30	mg/Kg	0.40
	Benzo(b)fluoranthene	0.30	mg/Kg	0.30
	Benzo(k)fluoranthene	0.30	mg/Kg	0.30
	Benzo(a)pyrene	0.30	mg/Kg	0.30
	Indeno(1,2,3-cd)pyrene	0.30	mg/Kg	<0.30
	Dibenzo(a,h)anthracene	0.30	mg/Kg	<0.30
	Benzo(g,h,i)perylene	0.30	mg/Kg	<0.30
C9-C18 Aliphatic Hydrocarbons[1]		12.0	mg/Kg	<12.0
C19-C36 Aliphatic Hydrocarbons[1]		12.0	mg/Kg	<12.0
C11-C22 Aromatic Hydrocarbons[1,2]		12.0	mg/Kg	14.7
Aliphatic Surrogate % Recovery				52
Aromatic Surrogate % Recovery				82
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				97
Fractionation Surrogate % Recovery				79
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

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SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE104-0/3
Method for Target Analytes:		Lab ID		V0219/20
EPH Surrogate Standards		Date Collected		2/18/10
Aliphatic: Chlorooctadecane		Date Received		2/19/10
Aromatic: o-Terphenyl		Date Extracted		2/25/10
EPH Fractionation Surrogates		Date Analyzed		2/25/10, 2/26/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		10.88
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		11.2	mg/Kg	16.5
Diesel PAH Analytes	Naphthalene	0.28	mg/Kg	<0.28
	2-Methylnaphthalene	0.28	mg/Kg	<0.28
	Phenanthrene	0.28	mg/Kg	0.40
	Acenaphthylene	0.28	mg/Kg	<0.25
Other Target PAH Analytes	Acenaphthene	0.28	mg/Kg	<0.25
	Fluorene	0.28	mg/Kg	<0.25
	Anthracene	0.28	mg/Kg	<0.25
	Fluoranthene	0.28	mg/Kg	0.60
	Pyrene	0.28	mg/Kg	0.60
	Benzo(a)anthracene	0.28	mg/Kg	0.30
	Chrysene	0.28	mg/Kg	0.30
	Benzo(b)fluoranthene	0.28	mg/Kg	0.30
	Benzo(k)fluoranthene	0.28	mg/Kg	0.30
	Benzo(a)pyrene	0.28	mg/Kg	0.30
	Indeno(1,2,3-cd)pyrene	0.28	mg/Kg	<0.28
	Dibenzo(a,h)anthracene	0.28	mg/Kg	<0.28
	Benzo(g,h,i)perylene	0.28	mg/Kg	<0.28
C9-C18 Aliphatic Hydrocarbons[1]		11.2	mg/Kg	<11.2
C19-C36 Aliphatic Hydrocarbons[1]		11.2	mg/Kg	<11.2
C11-C22 Aromatic Hydrocarbons[1,2]		11.2	mg/Kg	13.4
Aliphatic Surrogate % Recovery				48
Aromatic Surrogate % Recovery				59
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				68
Fractionation Surrogate % Recovery				52
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

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SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE104-3/6
Method for Target Analytes:		Lab ID		V0219-20
EPH Surrogate Standards		Date Collected		2/18/10
Aliphatic: Chlorooctadecane		Date Received		2/19/10
Aromatic: o-Terphenyl		Date Extracted		2/25/10
EPH Fractionation Surrogates		Date Analyzed		2/25/10, 2/26/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		11.35
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		11.0	mg/Kg	<11.0
Diesel PAH Analytes	Naphthalene	0.28	mg/Kg	<0.28
	2-Methylnaphthalene	0.28	mg/Kg	<0.28
	Phenanthrene	0.28	mg/Kg	<0.28
	Acenaphthylene	0.28	mg/Kg	<0.28
Other Target PAH Analytes	Acenaphthene	0.28	mg/Kg	<0.28
	Fluorene	0.28	mg/Kg	<0.28
	Anthracene	0.28	mg/Kg	<0.28
	Fluoranthene	0.28	mg/Kg	<0.28
	Pyrene	0.28	mg/Kg	<0.28
	Benzo(a)anthracene	0.28	mg/Kg	<0.28
	Chrysene	0.28	mg/Kg	<0.28
	Benzo(b)fluoranthene	0.28	mg/Kg	<0.28
	Benzo(k)fluoranthene	0.28	mg/Kg	<0.28
	Benzo(a)pyrene	0.28	mg/Kg	<0.28
	Indeno(1,2,3-cd)pyrene	0.28	mg/Kg	<0.28
	Dibenzo(a,h)anthracene	0.28	mg/Kg	<0.28
	Benzo(g,h,i)perylene	0.28	mg/Kg	<0.28
C9-C18 Aliphatic Hydrocarbons[1]		11.0	mg/Kg	<11.0
C19-C36 Aliphatic Hydrocarbons[1]		11.0	mg/Kg	<11.0
C11-C22 Aromatic Hydrocarbons[1,2]		11.0	mg/Kg	<11.0
Aliphatic Surrogate % Recovery				61
Aromatic Surrogate % Recovery				79
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				7293
Fractionation Surrogate % Recovery				72
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

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SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE105-1/3
Method for Target Analytes:		Lab ID		V0219-20
EPH Surrogate Standards		Date Collected		2/18/10
Aliphatic: Chlorooctadecane		Date Received		2/19/10
Aromatic: o-Terphenyl		Date Extracted		2/25/10
EPH Fractionation Surrogates		Date Analyzed		2/25/10, 2/26/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		13.60
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		11.4	mg/Kg	170
Diesel PAH Analytes	Naphthalene	0.29	mg/Kg	<0.29
	2-Methylnaphthalene	0.29	mg/Kg	<0.29
	Phenanthrene	0.29	mg/Kg	6.7
	Acenaphthylene	0.29	mg/Kg	<0.29
Other Target PAH Analytes	Acenaphthene	0.29	mg/Kg	0.40
	Fluorene	0.29	mg/Kg	0.70
	Anthracene	0.29	mg/Kg	1.7
	Fluoranthene	0.29	mg/Kg	11.5
	Pyrene	0.29	mg/Kg	6.8
	Benzo(a)anthracene	0.29	mg/Kg	5.5
	Chrysene	0.29	mg/Kg	6.3
	Benzo(b)fluoranthene	0.29	mg/Kg	6.5
	Benzo(k)fluoranthene	0.29	mg/Kg	4.2
	Benzo(a)pyrene	0.29	mg/Kg	3.9
	Indeno(1,2,3-cd)pyrene	0.29	mg/Kg	2.6
	Dibenzo(a,h)anthracene	0.29	mg/Kg	3.6
	Benzo(g,h,i)perylene	0.29	mg/Kg	4.4
C9-C18 Aliphatic Hydrocarbons[1]		11.4	mg/Kg	<11.4
C19-C36 Aliphatic Hydrocarbons[1]		11.4	mg/Kg	<11.4
C11-C22 Aromatic Hydrocarbons[1,2]		11.4	mg/Kg	105
Aliphatic Surrogate % Recovery				60
Aromatic Surrogate % Recovery				75
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				67
Fractionation Surrogate % Recovery				52
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

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SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE106-3/6
Method for Target Analytes:		Lab ID		V0219-20
EPH Surrogate Standards		Date Collected		2/18/10
Aliphatic: Chlorooctadecane		Date Received		2/19/10
Aromatic: o-Terphenyl		Date Extracted		2/25/10
EPH Fractionation Surrogates		Date Analyzed		2/25/10, 2/26/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		26.69
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		13.4	mg/Kg	19.8
Diesel PAH Analytes	Naphthalene	0.34	mg/Kg	<0.34
	2-Methylnaphthalene	0.34	mg/Kg	<0.34
	Phenanthrene	0.34	mg/Kg	0.40
	Acenaphthylene	0.34	mg/Kg	<0.34
Other Target PAH Analytes	Acenaphthene	0.34	mg/Kg	<0.34
	Fluorene	0.34	mg/Kg	<0.34
	Anthracene	0.34	mg/Kg	<0.34
	Fluoranthene	0.34	mg/Kg	0.70
	Pyrene	0.34	mg/Kg	0.80
	Benzo(a)anthracene	0.34	mg/Kg	0.40
	Chrysene	0.34	mg/Kg	0.40
	Benzo(b)fluoranthene	0.34	mg/Kg	<0.34
	Benzo(k)fluoranthene	0.34	mg/Kg	<0.34
	Benzo(a)pyrene	0.34	mg/Kg	0.40
	Indeno(1,2,3-cd)pyrene	0.34	mg/Kg	<0.34
	Dibenzo(a,h)anthracene	0.34	mg/Kg	<0.34
	Benzo(g,h,i)perylene	0.34	mg/Kg	<0.34
C9-C18 Aliphatic Hydrocarbons[1]		13.4	mg/Kg	<13.4
C19-C36 Aliphatic Hydrocarbons[1]		13.4	mg/Kg	<13.4
C11-C22 Aromatic Hydrocarbons[1,2]		13.4	mg/Kg	16.1
Aliphatic Surrogate % Recovery				53
Aromatic Surrogate % Recovery				61
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				55
Fractionation Surrogate % Recovery				45
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

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SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE107-0/3
Method for Target Analytes:		Lab ID		V0219-20
EPH Surrogate Standards		Date Collected		2/18/10
Aliphatic: Chlorooctadecane		Date Received		2/19/10
Aromatic: o-Terphenyl		Date Extracted		2/25/10
EPH Fractionation Surrogates		Date Analyzed		2/25/10, 2/26/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		14.77
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		11.6	mg/Kg	79.1
Diesel PAH Analytes	Naphthalene	0.29	mg/Kg	<0.29
	2-Methylnaphthalene	0.29	mg/Kg	<0.29
	Phenanthrene	0.29	mg/Kg	2.1
	Acenaphthylene	0.29	mg/Kg	<0.29
Other Target PAH Analytes	Acenaphthene	0.29	mg/Kg	<0.29
	Fluorene	0.29	mg/Kg	<0.29
	Anthracene	0.29	mg/Kg	0.60
	Fluoranthene	0.29	mg/Kg	4.5
	Pyrene	0.29	mg/Kg	4.4
	Benzo(a)anthracene	0.29	mg/Kg	2.5
	Chrysene	0.29	mg/Kg	2.9
	Benzo(b)fluoranthene	0.29	mg/Kg	2.3
	Benzo(k)fluoranthene	0.29	mg/Kg	2.3
	Benzo(a)pyrene	0.29	mg/Kg	2.5
	Indeno(1,2,3-cd)pyrene	0.29	mg/Kg	1.1
	Dibenzo(a,h)anthracene	0.29	mg/Kg	1.3
	Benzo(g,h,i)perylene	0.29	mg/Kg	1.5
C9-C18 Aliphatic Hydrocarbons[1]		11.6	mg/Kg	<11.6
C19-C36 Aliphatic Hydrocarbons[1]		11.6	mg/Kg	<11.6
C11-C22 Aromatic Hydrocarbons[1,2]		11.6	mg/Kg	51.1
Aliphatic Surrogate % Recovery				72
Aromatic Surrogate % Recovery				77
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				52
Fractionation Surrogate % Recovery				45
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

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SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE107-3-5.5
Method for Target Analytes:	Lab ID	V0219-20
EPH Surrogate Standards	Date Collected	2/18/10
Aliphatic: Chlorooctadecane	Date Received	2/19/10
Aromatic: o-Terphenyl	Date Extracted	2/25/10
EPH Fractionation Surrogates	Date Analyzed	2/25/10, 2/26/10
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	35 82

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		15.5	mg/Kg	<15.5
Diesel PAH Analytes	Naphthalene	0.39	mg/Kg	<0.39
	2-Methylnaphthalene	0.39	mg/Kg	<0.39
	Phenanthrene	0.39	mg/Kg	<0.39
	Acenaphthylene	0.39	mg/Kg	<0.39
Other Target PAH Analytes	Acenaphthene	0.39	mg/Kg	<0.39
	Fluorene	0.39	mg/Kg	<0.39
	Anthracene	0.39	mg/Kg	<0.39
	Fluoranthene	0.39	mg/Kg	<0.39
	Pyrene	0.39	mg/Kg	<0.39
	Benzo(a)anthracene	0.39	mg/Kg	<0.39
	Chrysene	0.39	mg/Kg	<0.39
	Benzo(b)fluoranthene	0.39	mg/Kg	<0.39
	Benzo(k)fluoranthene	0.39	mg/Kg	<0.39
	Benzo(a)pyrene	0.39	mg/Kg	<0.39
	Indeno(1,2,3-cd)pyrene	0.39	mg/Kg	<0.39
	Dibenzo(a,h)anthracene	0.39	mg/Kg	<0.39
	Benzo(g,h,i)perylene	0.39	mg/Kg	<0.39
C9-C18 Aliphatic Hydrocarbons[1]		15.5	mg/Kg	<15.5
C19-C36 Aliphatic Hydrocarbons[1]		15.5	mg/Kg	<15.5
C11-C22 Aromatic Hydrocarbons[1,2]		15.5	mg/Kg	<15.5
Aliphatic Surrogate % Recovery				65
Aromatic Surrogate % Recovery				61
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				48
Fractionation Surrogate % Recovery				41
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE108-0/3
Method for Target Analytes:	Lab ID	V0219-20
EPH Surrogate Standards	Date Collected	2/18/10
Aliphatic: Chlorooctadecane	Date Received	2/19/10
Aromatic: o-Terphenyl	Date Extracted	2/25/10
EPH Fractionation Surrogates	Date Analyzed	2/25/10, 2/26/10
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	15.23

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		11.7	mg/Kg	40.7
Diesel PAH Analytes	Naphthalene	0.29	mg/Kg	<0.29
	2-Methylnaphthalene	0.29	mg/Kg	<0.29
	Phenanthrene	0.29	mg/Kg	1.5
	Acenaphthylene	0.29	mg/Kg	<0.29
Other Target PAH Analytes	Acenaphthene	0.29	mg/Kg	<0.29
	Fluorene	0.29	mg/Kg	<0.29
	Anthracene	0.29	mg/Kg	0.30
	Fluoranthene	0.29	mg/Kg	2.9
	Pyrene	0.29	mg/Kg	3.1
	Benzo(a)anthracene	0.29	mg/Kg	1.5
	Chrysene	0.29	mg/Kg	1.7
	Benzo(b)fluoranthene	0.29	mg/Kg	1.6
	Benzo(k)fluoranthene	0.29	mg/Kg	0.80
	Benzo(a)pyrene	0.29	mg/Kg	1.4
	Indeno(1,2,3-cd)pyrene	0.29	mg/Kg	0.60
	Dibenzo(a,h)anthracene	0.29	mg/Kg	0.60
	Benzo(g,h,i)perylene	0.29	mg/Kg	0.80
C9-C18 Aliphatic Hydrocarbons[1]		11.7	mg/Kg	<11.7
C19-C36 Aliphatic Hydrocarbons[1]		11.7	mg/Kg	<11.7
C11-C22 Aromatic Hydrocarbons[1,2]		11.7	mg/Kg	23.9
Aliphatic Surrogate % Recovery				68
Aromatic Surrogate % Recovery				91
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				74
Fractionation Surrogate % Recovery				40
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE108-3/6
Method for Target Analytes:	Lab ID	V0219-20
EPH Surrogate Standards	Date Collected	2/18/10
Aliphatic: Chlorooctadecane	Date Received	2/19/10
Aromatic: o-Terphenyl	Date Extracted	2/25/10
EPH Fractionation Surrogates	Date Analyzed	2/25/10, 2/26/10
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	12.87

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		11.2	mg/Kg	<11.2
Diesel PAH Analytes	Naphthalene	0.28	mg/Kg	<0.28
	2-Methylnaphthalene	0.28	mg/Kg	<0.28
	Phenanthrene	0.28	mg/Kg	<0.28
	Acenaphthylene	0.28	mg/Kg	<0.28
Other Target PAH Analytes	Acenaphthene	0.28	mg/Kg	<0.28
	Fluorene	0.28	mg/Kg	<0.28
	Anthracene	0.28	mg/Kg	<0.28
	Fluoranthene	0.28	mg/Kg	<0.28
	Pyrene	0.28	mg/Kg	<0.28
	Benzo(a)anthracene	0.28	mg/Kg	<0.28
	Chrysene	0.28	mg/Kg	<0.28
	Benzo(b)fluoranthene	0.28	mg/Kg	<0.28
	Benzo(k)fluoranthene	0.28	mg/Kg	<0.28
	Benzo(a)pyrene	0.28	mg/Kg	<0.28
	Indeno(1,2,3-cd)pyrene	0.28	mg/Kg	<0.28
	Dibenzo(a,h)anthracene	0.28	mg/Kg	<0.28
	Benzo(g,h,i)perylene	0.28	mg/Kg	<0.28
C9-C18 Aliphatic Hydrocarbons[1]		11.2	mg/Kg	<11.2
C19-C36 Aliphatic Hydrocarbons[1]		11.2	mg/Kg	<11.2
C11-C22 Aromatic Hydrocarbons[1,2]		11.2	mg/Kg	<11.2
Aliphatic Surrogate % Recovery				98
Aromatic Surrogate % Recovery				74
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				67
Fractionation Surrogate % Recovery				67
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE109-12/15
Method for Target Analytes:	Lab ID	V0219-20
EPH Surrogate Standards	Date Collected	2/18/10
Aliphatic: Chlorooctadecane	Date Received	2/19/10
Aromatic: o-Terphenyl	Date Extracted	2/25/10
EPH Fractionation Surrogates	Date Analyzed	2/25/10, 2/26/10
2-Fluorobiphenyl	Dilution Factor	1X,20X
2-Bromonaphthalene	% Moisture (soil)	14.0

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		11.2	mg/Kg	83.1
Diesel PAH Analytes	Naphthalene	0.28	mg/Kg	2.4
	2-Methylnaphthalene	0.28	mg/Kg	0.40
	Phenanthrene	0.28	mg/Kg	0.40
	Acenaphthylene	0.28	mg/Kg	<0.28
Other Target PAH Analytes	Acenaphthene	0.28	mg/Kg	<0 28
	Fluorene	0.28	mg/Kg	<0.28
	Anthracene	0.28	mg/Kg	<0.28
	Fluoranthene	0.28	mg/Kg	0.30
	Pyrene	0.28	mg/Kg	0.30
	Benzo(a)anthracene	0.28	mg/Kg	<0.28
	Chrysene	0.28	mg/Kg	<0.28
	Benzo(b)fluoranthene	0.28	mg/Kg	<0.28
	Benzo(k)fluoranthene	0.28	mg/Kg	<0.28
	Benzo(a)pyrene	0.28	mg/Kg	<0.28
	Indeno(1,2,3-cd)pyrene	0.28	mg/Kg	<0.28
	Dibenzo(a,h)anthracene	0.28	mg/Kg	<0.28
	Benzo(g,h,i)perylene	0.28	mg/Kg	<0.28
C9-C18 Aliphatic Hydrocarbons[1]		11.2	mg/Kg	2910
C19-C36 Aliphatic Hydrocarbons[1]		11.2	mg/Kg	<11.2
C11-C22 Aromatic Hydrocarbons[1,2]		11 2	mg/Kg	79 3
Aliphatic Surrogate % Recovery				52
Aromatic Surrogate % Recovery				88
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				96
Fractionation Surrogate % Recovery				101
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 3/1/2010

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	Method Blank
Method for Target Analytes:	Lab ID	V0219-20
EPH Surrogate Standards	Date Collected	NA
Aliphatic: Chlorooctadecane	Date Received	NA
Aromatic: o-Terphenyl	Date Extracted	2/25/10
EPH Fractionation Surrogates	Date Analyzed	2/25/10, 2/26/10
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	0.00

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		10.0	mg/Kg	<10.0
Diesel PAH Analytes	Naphthalene	0.25	mg/Kg	<0.25
	2-Methylnaphthalene	0.25	mg/Kg	<0.25
	Phenanthrene	0.25	mg/Kg	<0.25
	Acenaphthylene	0.25	mg/Kg	<0.25
Other Target PAH Analytes	Acenaphthene	0.25	mg/Kg	<0.25
	Fluorene	0.25	mg/Kg	<0.25
	Anthracene	0.25	mg/Kg	<0.25
	Fluoranthene	0.25	mg/Kg	<0.25
	Pyrene	0.25	mg/Kg	<0.25
	Benzo(a)anthracene	0.25	mg/Kg	<0.25
	Chrysene	0.25	mg/Kg	<0.25
	Benzo(b)fluoranthene	0.25	mg/Kg	<0.25
	Benzo(k)fluoranthene	0.25	mg/Kg	<0.25
	Benzo(a)pyrene	0.25	mg/Kg	<0.25
	Indeno(1,2,3-cd)pyrene	0.25	mg/Kg	<0.25
	Dibenzo(a,h)anthracene	0.25	mg/Kg	<0.25
	Benzo(g,h,i)perylene	0.25	mg/Kg	<0.25
C9-C18 Aliphatic Hydrocarbons[1]		10.0	mg/Kg	<10.0
C19-C36 Aliphatic Hydrocarbons[1]		10.0	mg/Kg	<10.0
C11-C22 Aromatic Hydrocarbons[1,2]		10.0	mg/Kg	<10.0
Aliphatic Surrogate % Recovery				53
Aromatic Surrogate % Recovery				70
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				42
Fractionation Surrogate % Recovery				47
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached

Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached

Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: ______ POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 3/1/2010

```
                Spike Recovery and RPD Summary Report - WATER

Method       : R:\2\METHODS\ARO.M (Chemstation Integrator)
Title        :
Last Update  : Fri Feb 26 12:25:48 2010
Response via : Initial Calibration

Non-Spiked Sample:  F022450.D

          Spike                                 Spike
          Sample                                Duplicate Sample
------------------------------------------------------------------------
File ID :  F022451.D                          | F022452.D
Sample  :  LES 2-25                           | LESD 2-25
Acq Time:  25 Feb 20110    9:22 pm             | 25 Feb 20110   10:06 pm
------------------------------------------------------------------------

Compound             Sample Spike Spike  Dup  Spike  Dup  RPD    QC Limits
                      Conc  Added  Res   Res  %Rec  %Rec       RPD  % Rec
------------------------------------------------------------------------
Naphthalene         | 0.0 |  40  |  20 |  18 |  49 |  44 | 10 | 25 | 40-140|
2 methyl naphthalene| 0.0 |  40  |  16 |  18 |  40 |  45 | 12 | 25 | 40-140|
Acenaphthene        | 0.0 |  40  |  17 |  21 |  43 |  53 | 22 | 25 | 40-140|
Anthracene          | 0.0 |  40  |  26 |  33 |  66 |  82 | 21 | 25 | 40-140|
Pyrene              | 0.0 |  40  |  31 |  39 |  77 |  97 | 23 | 25 | 40-140|
Chrysene            | 0.0 |  40  |  34 |  40 |  84 |  99 | 17 | 25 | 40-140|
------------------------------------------------------------------------

  # - Fails Limit Check


          ARO.M          Mon Mar 01 13:39:42 2010
```

```
          Spike Recovery and RPD Summary Report - WATER

Method       : J:\METHODS\EPHALI.M (Chemstation Integrator)
Title        :
Last Update  : Fri Feb 26 11:17:18 2010
Response via : Initial Calibration

Non-Spiked Sample:  J022508.D

         Spike                                 Spike
         Sample                                Duplicate Sample
------------------------------------------------------------------------
File ID :  J022509.D                          | J022516.D
Sample  :  LES 2-25                           | LESD 2-25
Acq Time:  25 Feb 20110    4:50 pm             | 25 Feb 20110    8:01 pm
------------------------------------------------------------------------

Compound             Sample Spike Spike  Dup  Spike  Dup  RPD    QC Limits
                      Conc  Added  Res   Res  %Rec  %Rec       RPD  % Rec
------------------------------------------------------------------------
Nonane              | 0.0 |  40  |  13 |  12 |  32 |  30 |  6 | 25 | 30-140|
Tetradecane         | 0.0 |  40  |  24 |  23 |  60 |  58 |  4 | 25 | 40-140|
Nonadecane          | 0.0 |  40  |  23 |  25 |  57 |  62 |  7 | 25 | 40-140|
Eicosane            | 0.0 |  40  |  26 |  27 |  64 |  68 |  7 | 25 | 40-140|
Octacosane          | 0.0 |  40  |  24 |  25 |  60 |  64 |  7 | 25 | 40-140|
------------------------------------------------------------------------

  # - Fails Limit Check


          EPHALI.M       Mon Mar 01 13:43:31 2010
```

RESULTS: VOLATILE ORGANIC COMPOUNDS

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Organics Analysis Department certifies that the samples included in this section have been prepared and analyzed using the procedures cited and that the results have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0219-20
Method: 8260
Matrix: (soil/water) SOIL
Sample wt/vol: 34.2 (g/ml) G
% Moisture 14
Soil Extract Volume: (uL)
Analyst's Initials: HC

Client Name: Action Environmental, Inc
Lab Sample ID: AE-109-12/15
Lab File ID: C022536/C022533/C022535.D
Date Sampled: 2/18/2010
Date Analyzed: 2/25/2010
Dilution Factor: 100/400/4000
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: UG/KG	O
75-01-4	Vinyl Chloride	34	U
74-83-9	Bromomethane	34	U
75-00-3	Chloroethane	34	U
67-64-1	Acetone	170	U
75-35-4	1,1-Dichloroethene	34	U
75-15-0	Carbon Disulfide	34	U
75-09-2	Methylene Chloride	34	U
1634-04-4	tert-Butyl methyl ether	34	U
156-60-5	trans-1,2 Dichloroethene	34	U
75-34-3	1,1-Dichloroethane	34	U
78-93-3	2-Butanone	170	U
594-20-7	2,2-Dichloropropane	34	U
156-59-2	cis-1,2-Dichloroethene	34	U
67-66-3	Chloroform	34	U
74-97-5	Bromochloromethane	34	U
71-55-6	1,1,1-Trichloroethane	34	U
563-58-6	1,1-Dichloropropene	34	U
56-23-5	Carbon Tetrachloride	34	U
71-43-2	Benzene	34	U
107-06-2	1,2-Dichloroethane	34	U
79-01-6	Trichloroethene	34	U
78-87-5	1,2-Dichloropropane	34	U
75-27-4	Bromodichloromethane	34	U
74-95-3	Dibromomethane	34	U
108-10-1	4-Methyl-2-pentanone	170	U
106-93-4	Ethylene Dibromide	34	U
10061-01-5	cis-1,3-Dichloropropene	34	U
108-88-3	Toluene	34	U
10061-02-6	Trans-1,3-Dichloropropene	34	U
79-00-5	1,1,2-Trichloroethane	34	U
591-78-6	2-Hexanone	170	U
127-18-4	Tetrachloroethene	34	U
124-48-1	Chlorodibromomethane	34	U
108-90-7	Chlorobenzene	34	U
630-20-6	1,1,1,2-Tetrachloroethane	34	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0219-20
Method: 8260
Matrix: (soil/water) SOIL
Sample wt/vol: 34.2 (g/ml) G
% Moisture 14
Soil Extract Volume: (uL)
Analyst's Initials: HC

Client Name: Action Environmental, Inc
Lab Sample ID: AE-109-12/15
Lab File ID: C022536/C022533/C022535.D
Date Sampled: 2/18/2010
Date Analyzed: 2/25/2010
Dilution Factor: 100/400/4000
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: UG/KG	O
100-41-4	Ethylbenzene	34	U
1330-20-7	m & p-Xylene	68	U
95-47-6	o-Xylene	34	U
100-42-5	Styrene	34	U
75-25-2	Bromoform	34	U
98-82-8	Isopropylbenzene	3700	
79-34-5	1,1,2,2-Tetrachloroethane	34	U
108-86-1	Bromobenzene	34	U
96-18-4	1,2,3-Trichloropropane	34	U
95-49-8	2-Chlorotoluene	34	U
103-65-1	n-Propylbenzene	12000	
108-67-8	1,3,5-Trimethylbenzene	34	U
106-43-4	4-Chlorotoluene	34	U
98-06-6	tert-Butylbenzene	870	
95-63-6	1,2,4-Trimethylbenzene	88000	
135-98-8	sec-Butylbenzene	6000	
99-87-6	p-Isopropyltoluene	870	
75-87-3	Chloromethane	34	U
75-65-0	tert butyl alcohol	34	U
541-73-1	1,3-Dichlorobenzene	34	U
109-99-9	Tetrahydrofuran	34	U
106-46-7	1,4-Dichlorobenzene	34	U
60-29-7	Diethyl Ether	34	U
104-51-8	n-Butylbenzene	3100	
95-50-1	1,2-Dichlorobenzene	34	U
96-12-8	1,2-Dibromo-3-chloropropane	34	U
120-82-1	1,2,4-Trichlorobenzene	34	U
87-68-3	Hexachlorobutadiene	34	U
91-20-3	Naphthalene	2000	
87-61-6	1,2,3-Trichlorobenzene	34	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0219-20
Method: 8260
Matrix: (soil/water) SOIL
Sample wt/vol: 10.0 (g/ml) G
% Moisture 0
Soil Extract Volume: (uL)
Analyst's Initials: HC

Client Name: Action Environmental, Inc
Lab Sample ID: VBLK100225
Lab File ID: C022529.D
Date Sampled: 2/18/2010
Date Analyzed: 2/25/2010
Dilution Factor: 50.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: UG/KG	Q
75-01-4	Vinyl Chloride	50	U
74-83-9	Bromomethane	50	U
75-00-3	Chloroethane	50	U
67-64-1	Acetone	250	U
75-35-4	1,1-Dichloroethene	50	U
75-15-0	Carbon Disulfide	50	U
75-09-2	Methylene Chloride	50	U
1634-04-4	tert-Butyl methyl ether	50	U
156-60-5	trans-1,2 Dichloroethene	50	U
75-34-3	1,1-Dichloroethane	50	U
78-93-3	2-Butanone	250	U
594-20-7	2,2-Dichloropropane	50	U
156-59-2	cis-1,2-Dichloroethene	50	U
67-66-3	Chloroform	50	U
74-97-5	Bromochloromethane	50	U
71-55-6	1,1,1-Trichloroethane	50	U
563-58-6	1,1-Dichloropropene	50	U
56-23-5	Carbon Tetrachloride	50	U
71-43-2	Benzene	50	U
107-06-2	1,2-Dichloroethane	50	U
79-01-6	Trichloroethene	50	U
78-87-5	1,2-Dichloropropane	50	U
75-27-4	Bromodichloromethane	50	U
74-95-3	Dibromomethane	50	U
108-10-1	4-Methyl-2-pentanone	250	U
106-93-4	Ethylene Dibromide	50	U
10061-01-5	cis-1,3-Dichloropropene	50	U
108-88-3	Toluene	50	U
10061-02-6	Trans-1,3-Dichloropropene	50	U
79-00-5	1,1,2-Trichloroethane	50	U
591-78-6	2-Hexanone	250	U
127-18-4	Tetrachloroethene	50	U
124-48-1	Chlorodibromomethane	50	U
108-90-7	Chlorobenzene	50	U
630-20-6	1,1,1,2-Tetrachloroethane	50	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0219-20
Method: 8260
Matrix: (soil/water) SOIL
Sample wt/vol: 10.0 (g/ml) G
% Moisture 0
Soil Extract Volume: (uL)
Analyst's Initials: HC

Client Name: Action Environmental, Inc
Lab Sample ID: VBLK100225
Lab File ID: C022529.D
Date Sampled: 2/18/2010
Date Analyzed: 2/25/2010
Dilution Factor: 50.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: UG/KG	Q
100-41-4	Ethylbenzene	50	U
1330-20-7	m & p-Xylene	100	U
95-47-6	o-Xylene	50	U
100-42-5	Styrene	50	U
75-25-2	Bromoform	50	U
98-82-8	Isopropylbenzene	50	U
79-34-5	1,1,2,2-Tetrachloroethane	50	U
108-86-1	Bromobenzene	50	U
96-18-4	1,2,3-Trichloropropane	50	U
95-49-8	2-Chlorotoluene	50	U
103-65-1	n-Propylbenzene	50	U
108-67-8	1,3,5-Trimethylbenzene	50	U
106-43-4	4-Chlorotoluene	50	U
98-06-6	tert-Butylbenzene	50	U
95-63-6	1,2,4-Trimethylbenzene	50	U
135-98-8	sec-Butylbenzene	50	U
99-87-6	p-Isopropyltoluene	50	U
75-87-3	Chloromethane	50	U
75-65-0	tert butyl alcohol	50	U
541-73-1	1,3-Dichlorobenzene	50	U
109-99-9	Tetrahydrofuran	50	U
106-46-7	1,4-Dichlorobenzene	50	U
60-29-7	Diethyl Ether	50	U
104-51-8	n-Butylbenzene	50	U
95-50-1	1,2-Dichlorobenzene	50	U
96-12-8	1,2-Dibromo-3-chloropropane	50	U
120-82-1	1,2,4-Trichlorobenzene	50	U
87-68-3	Hexachlorobutadiene	50	U
91-20-3	Naphthalene	50	U
87-61-6	1,2,3-Trichlorobenzene	50	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: New England Testing Lab   Contract: 515 Somerville Av

Lab Code: RI010   Case No.: V0219-20   SAS No.: ______   SDG No.: Action Env

Level: (low/med) MED

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	VLCS100225	101	108	100	0
02	VBLK100225	92	96	97	0
03	AE-109-12/15	115	111	92	0

			QC LIMITS
SMC1	=	4-Bromofluorobenzene	(70-130)
SMC2	=	Toluene-D8	(70-130)
SMC3	=	1,2-Dichloroethane-D4	(70-130)

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D System Monitoring Compound diluted out

New England Testing Laboratory, Inc.

page 1 of 1   FORM II VOA-2

Volatile Organics Laboratory Control Spike

Date Analyzed: 02/25/2010   **Sample ID:** VLCS100225

Compound	Spike Added (ug/L)	Spike Result (ug/L)	Recovery, %	Lower Control Limit, %	Upper Control Limit, %
1,1-Dichloroethene	50 0	51 4	103	70	130
Benzene	50 0	48 6	97	70	130
Trichloroethene	50.0	47.3	95	70	130
Toluene	50.0	52.9	106	70	130
Chlorobenzene	50 0	46 6	93	70	130

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Ave.
North Providence, RI 02904
1-888-863-8522

CHAIN OF CUSTODY RECORD

VC219·20

PROJ NO. 3120

PROJECT NAME/LOCATION 515 SOMERVILLE AVE, SOMERVILLE, MA

CLIENT ACTION ENVIRONMENTAL, 184 RIVERVIEW AVE. 1ST FLOOR WALTHAM, MA 02453

REPORT TO ROBERT HOUGHTON

INVOICE TO ANDREW CLEMONS

DATE	TIME	COMP	GRAB	SAMPLE I.D	AQUEOUS	SOIL	OTHER	NO OF CONTAINERS	PRESERVATIVE	EPH + TARGET PAH	VOCs (8260)					REMARKS
2/18/10		X		AE101-0/3		X		1	CHILL	X						
		X		AE101-3/6.5		X		1		X						
		X		AE102-0/3		X		1		X						
		X		AE102-3/6		X		1		X						
		X		AE103-0/3		X		1		X						
		X		AE104-0/3		X		1		X						
		X		AE104-3/6		X		1		X						
		X		AE105-1/3		X		1		X						
		X		AE106-3/6		X		1		X						
		X		AE107-0/3		X		1		X						
		X		AE107-3-5.5		X		1		X						
		X		AE108-0/3		X		1		X						
		X		AE108-3/6		X		1		X						
			X	AE109-12/15		X		2	4°C/MeOH	X	X					

Sampled by (Signature) R Houghton	Date/Time 2/18/10	Received by (Signature)	Date/Time
Relinquished by (Signature) R Houghton	Date/Time 2/14/10 1100	Received by (Signature) Robert Lee	Date/Time 2/14/10 11:00
Relinquished by (Signature) Robert Lee	Date/Time 2/14/10 3:50	Received for Laboratory by (Signature)	Date/Time

Laboratory Remarks
Temp. received ______
Cooled ?

Special Instructions
List Specific Detection
Limit Requirements
MCP S-1/GW-2/3

Turnaround (Business Days) NORMAL 5

NETLAB

REPORT OF ANALYTICAL RESULTS

NETLAB Case Number V0219-20A

Prepared for:

Attn: Robert Houghton
Action Environmental, Inc.
184 Riverview Ave.
Waltham, MA 02453

Report Date: March 8, 2010

Lab # RI010

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue, North Providence, RI 02904
(401) 353-3420

Total # of Pages 21

ANALYTICAL METHOD REPORT CERTIFICATION FORM

Laboratory Name: New England Testing Laboratory, Inc. Project #: 3120

Project Location: 515 Somerville Avenue, Somerville MA RTN[1]:

This form provides certifications for the following data set: V0219-20A

Sample Matrices: Groundwater ( ) Soil/Sediment (x) Drinking Water ( ) Other:

SW-846 Methods Used	8260B ( )	8151A ( )	8330 ( )	6010B (x)	7470A/1A (x)
	8270C ( )	8081A ( )	VPH ( )	6020 ( )	9014M[2] ( )
	8082 ( )	8021B ( )	EPH ( )	7000 S[3] ( )	Other: ( )

1 List Release Tracking Number (RTN), if known
2 M – SW-846 Method 9014 or MADEP Physiologically Available Cyanide (PAC) Method
3 S – SW-846 Methods 7000 Series List individual method and analyte

An affirmative response to questions A, B, and C is required for "Presumptive Certainty" status

A	Were all samples received by the laboratory in a condition consistent with that described on the Chain-of Custody documentation for the data set?	Yes (X) No[1] ( )
B	Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	Yes (X) No[1] ( )
C	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in Section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No[1] ( ) Not Applicable ( )
D	***VPH and EPH Methods only***: Was the VPH and EPH Method conducted without significant modifications (see Section 11.3 of respective Methods)	Yes ( ) No[1] ( )

A response to questions E and F below is required for "Presumptive Certainty" status

E	Were all QC performance standards and recommendations for the specified methods achieved?	Yes (X) No[1] ( )
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?	Yes (X) No[1] ( )

[1]All NO answers must be addressed in an attached Environmental Laboratory case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Position: Laboratory Director

Printed Name: Richard Wanla Date: 3/8/2010

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The samples listed in Table I were submitted to New England Testing Laboratory on February 19, 2010 and additional analysis was requested March 2, 2010. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. This report of analytical results pertains only to sample(s) provided to us by the client which are indicated on the custody record. The case number for this sample submission is V0219-20A.

Custody records are included in this report.

Site: 515 Somerville Avenue, Somerville, MA

TABLE I, Samples Submitted

Sample ID	Date Sampled	Matrix	Analysis Requested
AE101-0/3	2/18/10	Soil	Table II
AE101-3/6.5	2/18/10	Soil	Table II
AE102-0/3	2/18/10	Soil	Table II
AE102-3/6	2/18/10	Soil	Table II
AE103-0/3	2/18/10	Soil	Table II
AE104-0/3	2/18/10	Soil	Table II
AE104-3/6	2/18/10	Soil	Table II
AE105-1/3	2/18/10	Soil	Table II
AE106-3/6	2/18/10	Soil	Table II
AE107-0/3	2/18/10	Soil	Table II
AE107-3-5.5	2/18/10	Soil	Table II
AE108-0/3	2/18/10	Soil	Table II
AE108-3/6	2/18/10	Soil	Table II

TABLE II, Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
Total Metals		
Arsenic	3050B	6010B
Barium	3050B	6010B
Cadmium	3050B	6010B
Chromium	3050B	6010B
Lead	3050B	6010B
Mercury	NA	7471A
Selenium	3050B	6010B
Silver	3050B	6010B

These methods are documented in:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, USEPA/OSW.

NETLAB New England Testing Laboratory, Inc.

CASE NARRATIVE:

Sample Receipt:

No sample for ms/msd/duplicate analysis was supplied. No trip blank was supplied. No field blank was supplied y. (This does not qualify the analytical results but does prevent conducting these SW-846 (Chapter 1, Section 3.4) QA Audits.)

The samples were all appropriately cooled and preserved upon receipt.

The samples were received in the appropriate containers.

The chain of custody was adequately completed and corresponded to the samples submitted.

Metals:

All samples were extracted and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

METALS RESULTS

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Metals Analysis Department certifies that the results included in this section have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

New England Testing Laboratory, Inc.

METALS RESULTS

Case Number V0219-20A
Sample ID AE101 0/3
Date collected 2/18/10
Matrix SOIL
Solids, % 91.08
Sample Type Total

Analyst MG/AJ

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Detection Limit	Units	Date of Preparation	Date Analyzed
Arsenic	7440-38-2	3050B	6010B	2.58	0.60	0.60	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	17.4	0.30	0.30	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.30	0.30	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	8.29	0.30	0.30	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	16.1	0.30	0.30	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	ND	0.074	0.074	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.60	0.60	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.30	0.30	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis

METALS RESULTS

Case Number: V0219-20A
Sample ID: AE101 3/6.5
Date collected: 2/18/10
Matrix SOIL
Solids, % 91.76
Sample Type: Total

Analyst MG/AJ

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Detection Limit	Units	Date of Preparation	Date Analyzed
Arsenic	7440-38-2	3050B	6010B	3.55	0.62	0.62	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	9.09	0.31	0.31	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.31	0.31	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	7.72	0.31	0.31	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	3.05	0.31	0.31	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	ND	0.071	0.071	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.62	0.62	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.31	0.31	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis.

METALS RESULTS

Case Number V0219-20A
Sample ID AE102 0/3
Date collected 2/18/10
Matrix SOIL
Solids, % 90.01
Sample Type Total

Analyst MG/AJ

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Detection Limit	Units	Date of Preparation	Date Analyzed
Arsenic	7440-38-2	3050B	6010B	2.79	0.63	0.63	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	37.3	0.32	0.32	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.32	0.32	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	5.07	0.32	0.32	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	111	0.32	0.32	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	ND	0.069	0.069	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.63	0.63	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.32	0.32	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis

METALS RESULTS

Case Number: V0219-20A
Sample ID: AE102 3/6
Date collected: 2/18/10
Matrix SOIL
Solids, % 88.52
Sample Type: Total

Analyst MG/AJ

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Detection Limit	Units	Date of Preparation	Date Analyzed
Arsenic	7440-38-2	3050B	6010B	2.43	0.72	0.72	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	9.24	0.36	0.36	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.36	0.36	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	6.30	0.36	0.36	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	3.15	0.36	0.36	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	ND	0.073	0.073	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.72	0.72	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.36	0.36	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis.

METALS RESULTS

Case Number: V0219-20A
Sample ID: AE103 0/3
Date collected 2/18/10
Matrix SOIL
Solids, % 82.99
Sample Type: Total

Analyst MG/AJ

		Preparative	Analytical		Reporting	Detection		Date of	Date
Parameter	**CAS Number**	**Method**	**Method**	**Result**	**Limit**	**Limit**	**Units**	**Preparation**	**Analyzed**
Arsenic	7440-38-2	3050B	6010B	2.42	0.73	0.73	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	41.7	0.37	0.37	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.37	0.37	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	8.13	0.37	0.37	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	124	0.37	0.37	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	0.204	0.080	0.080	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.73	0.73	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.37	0.37	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis.

METALS RESULTS

Case Number: V0219-20A
Sample ID: AE104 0/3
Date collected: 2/18/10
Matrix SOIL
Solids, % 89.12
Sample Type: Total

Analyst MG/AJ

		Preparative	Analytical		Reporting	Detection		Date of	Date
Parameter	**CAS Number**	**Method**	**Method**	**Result**	**Limit**	**Limit**	**Units**	**Preparation**	**Analyzed**
Arsenic	7440-38-2	3050B	6010B	1.97	0.63	0.63	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	62.2	0.32	0.32	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.32	0.32	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	10.1	0.32	0.32	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	31.3	0.32	0.32	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	0.683	0.077	0.077	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.63	0.63	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.32	0.32	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis.

METALS RESULTS

Case Number: V0219-20A
Sample ID. AE104 3/6
Date collected 2/18/10
Matrix SOIL
Solids, % 88.65
Sample Type: Total

Analyst MG/AJ

		Preparative	Analytical		Reporting	Detection		Date of	Date
Parameter	**CAS Number**	**Method**	**Method**	**Result**	**Limit**	**Limit**	**Units**	**Preparation**	**Analyzed**
Arsenic	7440-38-2	3050B	6010B	2.99	0.70	0.70	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	11.6	0.35	0.35	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.35	0.35	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	10.5	0.35	0.35	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	12.0	0.35	0.35	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	ND	0.069	0.069	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.70	0.70	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.35	0.35	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis.

METALS RESULTS

Case Number: V0219-20A
Sample ID: AE105 1/3
Date collected: 2/18/10
Matrix SOIL
Solids, % 86.40
Sample Type: Total

Analyst MG/AJ

		Preparative	Analytical		Reporting	Detection		Date of	Date
Parameter	**CAS Number**	**Method**	**Method**	**Result**	**Limit**	**Limit**	**Units**	**Preparation**	**Analyzed**
Arsenic	7440-38-2	3050B	6010B	3.24	0.66	0.66	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	99.0	0.33	0.33	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.33	0.33	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	7.20	0.33	0.33	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	154	0.33	0.33	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	0.723	0.076	0.076	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.66	0.66	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.33	0.33	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis.

METALS RESULTS

Case Number V0219-20A
Sample ID AF106 3/6
Date collected 2/18/10
Matrix SOIL
Solids, % 73.31
Sample Type Total

Analyst MG/AJ

		Preparative	Analytical		Reporting	Detection		Date of	Date
Parameter	**CAS Number**	**Method**	**Method**	**Result**	**Limit**	**Limit**	**Units**	**Preparatinn**	**Analyzed**
Arsenic	7440-38-2	3050B	6010B	1.29	0.76	0.76	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	23.7	0.38	0.38	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.38	0.38	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	5.60	0.38	0.38	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	3.63	0.38	0.38	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	ND	0.085	0.085	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.76	0.76	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.38	0.38	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis.

METALS RESULTS

Case Number: V0219-20A
Sample ID: AE107 0/3
Date collected: 2/18/10
Matrix SOIL
Solids, % 85.23
Sample Type: Total

Analyst MG/AJ

		Preparative	Analytical		Reporting	Detection		Date of	Date
Parameter	**CAS Number**	**Method**	**Method**	**Result**	**Limit**	**Limit**	**Units**	**Preparation**	**Analyzed**
Arsenic	7440-38-2	3050B	6010B	3.52	0.57	0.57	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	36.4	0.28	0.28	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.28	0.28	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	13.2	0.28	0.28	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	140	0.28	0.28	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	0.551	0.078	0.078	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.57	0.57	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.28	0.28	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis.

METALS RESULTS

Case Number V0219-20A
Sample ID AE107 3-5.5
Date collected 2/18/10
Matrix SOIL
Solids, % 64.118
Sample Type Total

Analyst MG/AJ

		Preparative	Analytical		Reporting	Detection		Date of	Date
Parameter	**CAS Number**	**Method**	**Method**	**Result**	**Limit**	**Limit**	**Units**	**Preparation**	**Analyzed**
Arsenic	7440-38-2	3050B	6010B	1.34	0.79	0.79	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	33.6	0.40	0.40	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.40	0.40	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	7.51	0.40	0.40	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	14.3	0.40	0.40	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	ND	0.105	0.105	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.79	0.79	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.40	0.40	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis

METALS RESULTS

Case Number: V0219-20A
Sample ID: AF108 0/3
Date collected: 2/18/10
Matrix SOIL
Solids, % 84.77
Sample Type: Total

Analyst MG/AJ

		Preparative	Analytical		Reporting	Detection		Date of	Date
Parameter	**CAS Number**	**Method**	**Method**	**Result**	**Limit**	**Limit**	**Units**	**Preparation**	**Analyzed**
Arsenic	7440-38-2	3050B	6010B	3.14	0.53	0.53	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	34.6	0.27	0.27	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.27	0.27	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	7.98	0.27	0.27	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	287	0.27	0.27	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	0.544	0.076	0.076	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.53	0.53	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.27	0.27	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis.

METALS RESULTS

NETLAB

Case Number: V0219-20A
Sample ID: AE108 3/6
Date collected: 2/18/10
Matrix: SOIL
Solids, %: 87.13
Sample Type: Total

Analyst: MG/AJ

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Detection Limit	Units	Date of Preparation	Date Analyzed
Arsenic	7440-38-2	3050B	6010B	0.81	0.62	0.62	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	17.8	0.31	0.31	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.31	0.31	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	6.24	0.31	0.31	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	5.67	0.31	0.31	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	ND	0.070	0.070	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.62	0.62	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.31	0.31	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis.

METALS RESULTS

NETLAB

Sample ID: Preparation Blank
Matrix: SOIL
Solids, %: 100
Sample Type: Total

Analyst: MG/AJ

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Detection Limit	Units	Date of Preparation	Date Analyzed
Arsenic	7440-38-2	3050B	6010B	ND	0.67	0.67	mg/kg	3/4/10	3/4/10
Barium	7440-39-3	3050B	6010B	ND	0.33	0.33	mg/kg	3/4/10	3/4/10
Cadmium	7440-43-9	3050B	6010B	ND	0.33	0.33	mg/kg	3/4/10	3/4/10
Chromium	7440-47-3	3050B	6010B	ND	0.33	0.33	mg/kg	3/4/10	3/4/10
Lead	7439-92-1	3050B	6010B	ND	0.33	0.33	mg/kg	3/4/10	3/4/10
Mercury	7439-97-6	NA	7471A	ND	0.067	0.067	mg/kg	3/5/10	3/5/10
Selenium	7782-49-2	3050B	6010B	ND	0.67	0.67	mg/kg	3/4/10	3/4/10
Silver	7440-22-4	3050B	6010B	ND	0.33	0.33	mg/kg	3/4/10	3/4/10

ND indicates not Detected

All results are reported on a dry weight basis.

NETLAB

LABORATORY CONTROL SAMPLE RECOVERY

Parameter	True Value	Result	Units	Recovery, %	Internal LCL, %	Internal UCL, %	Date Analyzed
Arsenic	10.0	9.87	mg/kg	99	71	106	3/4/10
Barium	56.7	54.0	mg/kg	95	75	106	3/4/10
Cadmium	56.7	53.8	mg/kg	95	72	104	3/4/10
Chromium	56.7	50.9	mg/kg	90	74	105	3/4/10
Lead	56.7	57.9	mg/kg	102	73	109	3/4/10
Mercury	0.133	0.137	mg/kg	103	83	115	3/5/10
Selenium	10.0	8.40	mg/kg	84	75	100	3/4/10
Silver	33.3	30.6	mg/kg	92	73	127	3/4/10

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Ave.
North Providence, RI 02904
1-888-863-8522

CHAIN OF CUSTODY RECORD

V0219·20A

PROJ NO: 3120
PROJECT NAME/LOCATION: 515 SOMERVILLE AVE, SOMERVILLE, MA
CLIENT: ACTION ENVIRONMENTAL, 184 RIVERVIEW AVE. 1ST FLOOR, WALTHAM, MA 02453
REPORT TO: ROBERT HOUGHTON
INVOICE TO: ANDREW CLEMONS

DATE	TIME	COMP	GRAB	SAMPLE I.D.	AQUEOUS	SOIL	OTHER	NO OF CONTAINERS	PRESERVATIVE	EPH + TARGET PAH	VOCs (8260)	RCRA 8	REMARKS
2/18/10		X		AE101-0/3		X		1	CHILL	X		X	
		X		AE101-3/6.5		X		1		X		X	
		X		AE102-0/3		X		1		X		X	
		X		AE102-3/6		X		1		X		X	
		X		AE103-0/3		X		1		X		X	
		X		AE104-0/3		X		1		X		X	
		X		AE104-3/6		X		1		X		X	
		X		AE105-1/3		X		1		X		X	
		X		AE106-3/6		X		1		X		X	
		X		AE107-0/3		X		1		X		X	
		X		AE107-3-5.5		X		1		X		X	
		X		AE108-0/3		X		1		X		X	RCRA 8 metals added per Robert Houghton 3/3/10
		X		AE108-3/6		X		1		X		X	
			X	AE109-12/15		X		2	CHILL/MeOH	X	X		

Sampled by (Signature): R Houghton	Date/Time: 2/18/10	Received by (Signature):	Date/Time:
Relinquished by (Signature): R Houghton	Date/Time: 2/19/10 1100	Received by (Signature): Robert Lee	Date/Time: 2/19/10 11:00
Relinquished by (Signature): Robert Lee	Date/Time: 2/19/10 3:50	Received for Laboratory by (Signature):	Date/Time: 2/19/10 15:50

Laboratory Remarks
Temp received: ______
Cooled ☐

Special Instructions
List Specific Detection Limit Requirements: MCP S-1/GW-2/3

Turnaround (Business Days): NORMAL 5

NETLAB

REPORT OF ANALYTICAL RESULTS

NETLAB Case Number V0610-18

Prepared for:

Attn: Robert Houghton
Action Boston, Inc.
184 Riverview Ave.
Waltham, MA 02453

Report Date: June 18, 2010

Lab # RI010

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue, North Providence, RI 02904
(401) 353-3420

ANALYTICAL METHOD REPORT CERTIFICATION FORM

Laboratory Name: New England Testing Laboratory, Inc. Project #: 3120

Project Location: 515 Somerville Ave, Somerville, MA RTN[1]:

This form provides certifications for the following data set: V0610-18

Sample Matrices: Groundwater (x) Soil/Sediment ( ) Drinking Water ( ) Other:

SW-846 Methods Used	8260B (x)	8151A ( )	8330 ( )	6010B ( )	7470A/1A ( )
	8270C ( )	8081A ( )	VPH (x)	6020 ( )	9014M[2] ( )
	8082 ( )	8021B ( )	EPH (x)	7000 S[3] ( )	Other: ( )

1 List Release Tracking Number (RTN), if known
2 M – SW-846 Method 9014 or MADEP Physiologically Available Cyanide (PAC) Method
3 S – SW-846 Methods 7000 Series List individual method and analyte

An affirmative response to questions A, B, and C is required for "Presumptive Certainty" status

A	Were all samples received by the laboratory in a condition consistent with that described on the Chain-of Custody documentation for the data set?	Yes (X) No[1] ( )
B	Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, Including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	Yes (X) No[1] ( )
C	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in Section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No[1] ( ) Not Applicable ( )
D	***VPH and EPH Methods only***: Was the VPH and EPH Method conducted without significant modifications (see Section 11.3 of respective Methods)	Yes (X) No[1] ( )

A response to questions E and F below is required for "Presumptive Certainty" status

E	Were all QC performance standards and recommendations for the specified methods achieved?	Yes (X) No[1] ( )
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?	Yes (X) No[1] ( )

[1]All NO answers must be addressed in an attached Environmental Laboratory case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Position: Laboratory Director

Printed Name: Richard Warila Date: 6/18/2010

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The samples listed in Table I were submitted to New England Testing Laboratory on June 10, 2010. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report This report of analytical results pertains only to sample(s) provided to us by the client which are indicated on the custody record. The case number for this sample submission is V0610-18.

Custody records are included in this report.

Site: 515 Somerville Ave, Somerville, MA

TABLE I, Samples Submitted

Sample ID	Date Sampled	Matrix	Analysis Requested
AE-101	6/9/10	Water	Table II
AE-102	6/9/10	Water	Table II, III
AE-103	6/9/10	Water	Table II
AE-104	6/9/10	Water	Table II
AE-106	6/9/10	Water	Table II
AE-107	6/9/10	Water	Table II
AE-108	6/9/10	Water	Table II, III
AE-109	6/9/10	Water	Table II, III

TABLE II, Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
VPH	NA	**
EPH	NA	*

TABLE III Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
Volatile Organic Compounds	5030	8260B

These methods are documented in

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, USEPA/OSW

**Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MADEP

*Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MADEP

CASE NARRATIVE:

Sample Receipt:

No sample for ms/msd/duplicate analysis was supplied. No trip blank was supplied. No field blank was supplied y. (This does not qualify the analytical results but does prevent conducting these SW-846 {Chapter 1, Section 3.4} QA Audits.)

The samples were all appropriately cooled and preserved upon receipt.

The samples were received in the appropriate containers.

The chain of custody was adequately completed and corresponded to the samples submitted.

EPH:

All samples were extracted and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

VPH:

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

VOC:

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

RESULTS: EXTRACTABLE PETROLEUM HYDROCARBONS

Results for EPH analysis are presented in the following section. Each page is electronically signed.

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-101
Method for Target Analytes:		Lab ID		V0610-18
EPH Surrogate Standards		Date Collected		6/9/10
Aliphatic: Chlorooctadecane		Date Received		6/10/10
Aromatic: o-Terphenyl		Date Extracted		6/14/10
EPH Fractionation Surrogates		Date Analyzed		6/15/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				82
Aromatic Surrogate % Recovery				85
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				78
Fractionation Surrogate % Recovery				50
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached

Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached

Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 6/18/2010

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-102
Method for Target Analytes:		Lab ID		V0610-18
EPH Surrogate Standards		Date Collected		6/9/10
Aliphatic: Chlorooctadecane		Date Received		6/10/10
Aromatic: o-Terphenyl		Date Extracted		6/14/10
EPH Fractionation Surrogates		Date Analyzed		6/15/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				60
Aromatic Surrogate % Recovery				61
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				57
Fractionation Surrogate % Recovery				42
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached

Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached

Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 6/18/2010

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-103
Method for Target Analytes:		Lab ID		V0610-18
EPH Surrogate Standards		Date Collected		6/9/10
Aliphatic: Chlorooctadecane		Date Received		6/10/10
Aromatic: o-Terphenyl		Date Extracted		6/14/10
EPH Fractionation Surrogates		Date Analyzed		6/15/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				79
Aromatic Surrogate % Recovery				69
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				68
Fractionation Surrogate % Recovery				41
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached

Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached

Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 6/18/2010

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-104
Method for Target Analytes:		Lab ID		V0610-18
EPH Surrogate Standards		Date Collected		6/9/10
Aliphatic: Chlorooctadecane		Date Received		6/10/10
Aromatic: o-Terphenyl		Date Extracted		6/14/10
EPH Fractionation Surrogates		Date Analyzed		6/15/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics^1		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons^1		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons^1		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons^{1,2}		150	ug/L	<150
Aliphatic Surrogate % Recovery				76
Aromatic Surrogate % Recovery				67
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				60
Fractionation Surrogate % Recovery				44
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 6/18/2010

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-106
Method for Target Analytes:		Lab ID		V0610-18
EPH Surrogate Standards		Date Collected		6/9/10
Aliphatic: Chlorooctadecane		Date Received		6/10/10
Aromatic: o-Terphenyl		Date Extracted		6/14/10
EPH Fractionation Surrogates		Date Analyzed		6/15/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics^1		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons^1		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons^1		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons^{1,2}		150	ug/L	<150
Aliphatic Surrogate % Recovery				72
Aromatic Surrogate % Recovery				79
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				84
Fractionation Surrogate % Recovery				77
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

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SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 6/18/2010

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-107
Method for Target Analytes:		Lab ID		V0610-18
EPH Surrogate Standards		Date Collected		6/9/10
Aliphatic: Chlorooctadecane		Date Received		6/10/10
Aromatic: o-Terphenyl		Date Extracted		6/14/10
EPH Fractionation Surrogates		Date Analyzed		6/15/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics^1		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons^1		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons^1		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons^{1,2}		150	ug/L	<150
Aliphatic Surrogate % Recovery				49
Aromatic Surrogate % Recovery				53
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				70
Fractionation Surrogate % Recovery				48
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

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SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 6/18/2010

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-108
Method for Target Analytes:		Lab ID		V0610-18
EPH Surrogate Standards		Date Collected		6/9/10
Aliphatic: Chlorooctadecane		Date Received		6/10/10
Aromatic: o-Terphenyl		Date Extracted		6/14/10
EPH Fractionation Surrogates		Date Analyzed		6/15/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics^1		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons^1		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons^1		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons^{1,2}		150	ug/L	<150
Aliphatic Surrogate % Recovery				51
Aromatic Surrogate % Recovery				51
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				80
Fractionation Surrogate % Recovery				71
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
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SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 6/18/2010

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1			Client ID	AE-109
Method for Target Analytes:			Lab ID	V0610-18
EPH Surrogate Standards			Date Collected	6/9/10
Aliphatic: Chlorooctadecane			Date Received	6/10/10
Aromatic: o-Terphenyl			Date Extracted	6/14/10
EPH Fractionation Surrogates			Date Analyzed	6/15/10
2-Fluorobiphenyl			Dilution Factor	1X
2-Bromonaphthalene			% Moisture (soil)	N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				69
Aromatic Surrogate % Recovery				67
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				73
Fractionation Surrogate % Recovery				70
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

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SIGNATURE: ______ POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 6/18/2010

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	Satisfactory Broken Leaking:
Aqueous Preservatives	N/A pH<2 pH>2 Comment:
Temperature	Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1			Client ID	Method Blank
Method for Target Analytes:			Lab ID	V0610-18
EPH Surrogate Standards			Date Collected	NA
Aliphatic: Chlorooctadecane			Date Received	NA
Aromatic: o-Terphenyl			Date Extracted	6/14/10
EPH Fractionation Surrogates			Date Analyzed	6/14/10
2-Fluorobiphenyl			Dilution Factor	1X
2-Bromonaphthalene			% Moisture (soil)	N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				81
Aromatic Surrogate % Recovery				68
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				41
Fractionation Surrogate % Recovery				56
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached

Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached

Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: ______ POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 6/18/2010

```
          Spike Recovery and RPD Summary Report - WATER

Method       : J:\METHODS\EPHALI.M (Chemstation Integrator)
Title        :
Last Update  : Thu Apr 01 08:34:15 2010
Response via : Initial Calibration

Non-Spiked Sample:  J061402.D

          Spike                           Spike
          Sample                          Duplicate Sample
---------------------------------------------------------------------
File ID :  J061403.D                      | J061404.D
Sample  :  LEW 6-14                       | LEWD 6-14
Acq Time:  14 Jun 2010    3:54 pm         | 14 Jun 2010    4:23 pm
---------------------------------------------------------------------
Compound                 Sample Spike Spike  Dup   Spike  Dup  RPD    QC Limits
                          Conc  Added  Res   Res   %Rec  %Rec        RPD   % Rec
---------------------------------------------------------------------
Nonane                   | 0.0 |  40 |  12 |  13 |  31 |  31 |  3 | 25 | 30-140|
Tetradecane              | 0.0 |  40 |  24 |  21 |  60 |  53 | 13 | 25 | 40-140|
Nonadecane               | 0.0 |  40 |  29 |  26 |  72 |  65 | 11 | 25 | 40-140|
Eicosane                 | 0.0 |  40 |  33 |  28 |  84 |  70 | 18 | 25 | 40-140|
Octacosane               | 0.0 |  40 |  30 |  27 |  76 |  66 | 13 | 25 | 40-140|
---------------------------------------------------------------------

  # - Fails Limit Check


          EPHALI.M       Tue Jun 15 11:41:09 2010
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          Spike Recovery and RPD Summary Report - WATER

Method       : R:\2\METHODS\ARO.M (Chemstation Integrator)
Title        :
Last Update  : Wed Jun 02 09:07:53 2010
Response via : Initial Calibration

Non-Spiked Sample:  F061402.D

          Spike                           Spike
          Sample                          Duplicate Sample
---------------------------------------------------------------------
File ID :  F061403.D                      | F061404.D
Sample  :  LEW 6-14                       | LEWD 6-14
Acq Time:  14 Jun 2010    5:46 pm         | 14 Jun 2010    6:30 pm
---------------------------------------------------------------------
Compound                 Sample Spike Spike  Dup   Spike  Dup  RPD    QC Limits
                          Conc  Added  Res   Res   %Rec  %Rec        RPD   % Rec
---------------------------------------------------------------------
Naphthalene              | 0.0 |  40 |  19 |  19 |  47 |  49 |  2 | 25 | 40-140|
2 methyl naphthalene     | 0.0 |  40 |  17 |  17 |  43 |  43 |  0 | 25 | 40-140|
Acenaphthene             | 0.0 |  40 |  23 |  24 |  57 |  61 |  5 | 25 | 40-140|
Anthracene               | 0.0 |  40 |  25 |  25 |  64 |  62 |  3 | 25 | 40-140|
Pyrene                   | 0.0 |  40 |  28 |  27 |  71 |  68 |  4 | 25 | 40-140|
Chrysene                 | 0.0 |  40 |  28 |  28 |  70 |  69 |  2 | 25 | 40-140|
---------------------------------------------------------------------

  # - Fails Limit Check


          ARO.M          Tue Jun 15 11:42:11 2010
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RESULTS: VOLATILE PETROLEUM HYDROCARBONS

Results for VPH analysis are presented in the following section. Each page is electronically signed.

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other.		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98	Client ID	AE-101
Method for Target Analytes:	Lab ID	V0610-18
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene	Date Collected	6/9/10
	Date Received	6/10/10
	Date Analyzed	6/15/10
	Dilution Factor	1X
	% Moisture (soil)	NA

Range/Target Analyte	Elution Range	RL	Units	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				90
FID Surrogate % Recovery				84
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 6/18/2010

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98	Client ID	AE-102
Method for Target Analytes:	Lab ID	V0610-18
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene	Date Collected	6/9/10
	Date Received	6/10/10
	Date Analyzed	6/15/10
	Dilution Factor	1X
	% Moisture (soil)	NA

Range/Target Analyte	Elution Range	RL	Units	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				90
FID Surrogate % Recovery				85
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 6/18/2010

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98	Client ID	AE-103
Method for Target Analytes:	Lab ID	V0610-18
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene	Date Collected	6/9/10
	Date Received	6/10/10
	Date Analyzed	6/15/10
	Dilution Factor	1X
	% Moisture (soil)	NA

Range/Target Analyte	Elution Range	RL	Units	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				92
FID Surrogate % Recovery				85
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 6/18/2010

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	AE-104
Method for Target Analytes:			Lab ID	V0610-18
VPH Surrogate Standards			Date Collected	6/9/10
PID: 2,5- Dibromotoluene			Date Received	6/10/10
FID: 2,5- Dibromotoluene			Date Analyzed	6/15/10
			Dilution Factor	1X
			% Moisture (soil)	NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				93
FID Surrogate % Recovery				85
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: ______ POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 6/18/2010

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	AE-106
Method for Target Analytes:			Lab ID	V0610-18
VPH Surrogate Standards			Date Collected	6/9/10
PID: 2,5- Dibromotoluene			Date Received	6/10/10
FID: 2,5- Dibromotoluene			Date Analyzed	6/15/10
			Dilution Factor	1X
			% Moisture (soil)	NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				91
FID Surrogate % Recovery				84
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: ______ POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 6/18/2010

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	AE-107
Method for Target Analytes:			Lab ID	V0610-18
VPH Surrogate Standards			Date Collected	6/9/10
PID: 2,5- Dibromotoluene			Date Received	6/10/10
FID: 2,5- Dibromotoluene			Date Analyzed	6/15/10
			Dilution Factor	1X
			% Moisture (soil)	NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				94
FID Surrogate % Recovery				86
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: ______ POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 6/18/2010

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	AE-108
Method for Target Analytes:			Lab ID	V0610-18
VPH Surrogate Standards			Date Collected	6/9/10
PID: 2,5- Dibromotoluene			Date Received	6/10/10
FID: 2,5- Dibromotoluene			Date Analyzed	6/15/10
			Dilution Factor	1X
			% Moisture (soil)	NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				96
FID Surrogate % Recovery				89
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: ______ POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 6/18/2010

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other		
Containers	X Satisfactory _ Broken _ Leaking		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container	_ Other.
Temperature	X Received on Ice X Received at 4° C Other		

VPH ANALYTICAL RESULTS

Method for Ranges MADEP VPH 01/98		Client ID		AE-109
Method for Target Analytes		Lab ID		V0610-18
VPH Surrogate Standards		Date Collected		6/9/10
PID 2,5- Dibromotoluene		Date Received		6/10/10
FID 2,5- Dibromotoluene		Date Analyzed		6/15/10
		Dilution Factor		1X
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	100
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	73.4
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				95
FID Surrogate % Recovery				85
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: ______________ POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 6/18/2010

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other		
Containers	_ Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container	_ Other
Temperature	_ Received on Ice _ Received at 4° C _ Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		Method Blank
Method for Target Analytes.		Lab ID		V0610-18
VPH Surrogate Standards		Date Collected		NA
PID. 2,5- Dibromotoluene		Date Received		NA
FID 2,5- Dibromotoluene		Date Analyzed		6/15/10
		Dilution Factor		1X
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5	ug/L	<5
Ethylbenzene	C9-C12	5	ug/L	<5
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5	ug/L	<5
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				94
FID Surrogate % Recovery				88
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range ANO concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: ______________ POSITION. Laboratory Director

PRINTED NAME. Richard Warila DATE. 6/18/2010

```
          Spike Recovery and RPD Summary Report - WATER

Method       : C:\HPCHEM\1\METHODS\VPHQUANT.M (Chemstation Integrator)
Title        :
Last Update  : Wed Apr 28 09:13:24 2010
Response via : Initial Calibration

Non Spiked Sample:  D061414.D

             Spike                          Spike
             Sample                         Duplicate Sample
          ---------------------------------------------------------
File ID :    D061411.D                    | D061412.D
Sample  :    LCS0615                      | LCSD0615
Acq Time :   15 Jun 2010  10:02 am        | 15 Jun 2010  10:43 am
          ---------------------------------------------------------

Compound                Sample Spike Spike  Dup  Spike  Dup  RPD    QC Limits
                         Conc  Added  Res   Res  %Rec  %Rec        RPD  % Rec
          ---------------------------------------------------------------------
Pentane                | 0.0 |  50 |  59 |  63 | 119 | 126 |  6 | 25 | 70-130|
2 Methyl pentane       | 0.0 |  50 |  59 |  63 | 118 | 127 |  7 | 25 | 70-130|
2,2,4 trimethylpenta| 0.0 |  50 |  55 |  60 | 110 | 120 |  9 | 25 | 70-130|
MTBE #1                | 0.0 |  50 |  56 |  57 | 112 | 113 |  1 | 25 | 70-130|
Benzene #1             | 0.0 |  50 |  53 |  53 | 107 | 105 |  1 | 25 | 70-130|
Toluene #1             | 0.0 |  50 |  51 |  52 | 101 | 103 |  2 | 25 | 70-130|
Ethylbenzene #2        | 0.0 |  50 |  53 |  54 | 106 | 109 |  2 | 25 | 70-130|
M&P Xylene #2          | 0.0 | 100 | 112 | 112 | 112 | 112 |  0 | 25 | 70-130|
O Xylene #1            | 0.0 |  50 |  49 |  50 |  98 |  99 |  1 | 25 | 70-130|
Naphthalene            | 0.0 |  50 |  43 |  44 |  87 |  88 |  1 | 25 | 70-130|
          ---------------------------------------------------------------------

  # - Fails Limit Check


          VPHQUANT.M     Wed Jun 16 10:06:03 2010
```

RESULTS: VOLATILE ORGANIC COMPOUNDS

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Organics Analysis Department certifies that the samples included in this section have been prepared and analyzed using the procedures cited and that the results have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

NELTLAB

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0610-18
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Boston, Inc
Lab Sample ID: AE-102
Lab File ID: C061517.D
Date Sampled: 6/9/2010
Date Analyzed: 6/15/2010
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	1.0	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

NELTLAB

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0610-18
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Boston, Inc
Lab Sample ID: AE-102
Lab File ID: C061517.D
Date Sampled: 6/9/2010
Date Analyzed: 6/15/2010
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	p-Isopropyltoluene	1.0	U
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

NELTLAB

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0610-18
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Boston, Inc
Lab Sample ID: AE-108
Lab File ID: C061518.D
Date Sampled: 6/9/2010
Date Analyzed: 6/15/2010
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	1.0	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

NELTLAB

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0610-18
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Boston, Inc
Lab Sample ID: AE-108
Lab File ID: C061518.D
Date Sampled: 6/9/2010
Date Analyzed: 6/15/2010
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	p-Isopropyltoluene	1.0	U
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No V0610-18
Method 8260
Matrix (soil/water) WATER
Sample wt/vol 5.0 (g/ml) ML
% Moisture
Soil Extract Volume. (uL)
Analyst's Initials

Client Name: Action Boston, Inc
Lab Sample ID: AE-109
Lab File ID: C061519.D
Date Sampled: 6/9/2010
Date Analyzed: 6/15/2010
Dilution Factor 1.0
Soil Aliquot Volume. (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	1.0	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0610-18
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Boston, Inc
Lab Sample ID: AE-109
Lab File ID: C061519.D
Date Sampled: 6/9/2010
Date Analyzed. 6/15/2010
Dilution Factor 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	p-Isopropyltoluene	1.0	U
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No. V0610-18
Method 8260
Matrix (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume (uL)
Analyst's Initials

Client Name: Action Boston, Inc
Lab Sample ID: VBLK0615
Lab File ID: C061515.D
Date Sampled. 6/9/2010
Date Analyzed: 6/15/2010
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	1.0	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No. V0610-18
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Boston, Inc
Lab Sample ID: VBLK0615
Lab File ID: C061515.D
Date Sampled: 6/9/2010
Date Analyzed: 6/15/2010
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	p-Isopropyltoluene	1.0	U
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

NETLAB

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: New England Trestlng Laboratory Contract: 515 Somerville Av

Lab Code: RI010 Case No.: V0610-18 SAS No.: Action SDG No.: Action Bos

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	LCS0615	92	101	108	0
02	VBLK0615	82	101	94	0
03	AE-102	89	105	81	0
04	AE-108	85	100	90	0
05	AE-109	80	97	96	0

			QC LIMITS
SMC1	=	4-Bromofluorobenzene	(70-130)
SMC2	=	Toluene-D8	(70-130)
SMC3	=	1,2-Dichloroethane-D4	(70-130)

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D System Monitoring Compound diluted out

New England Testing Laboratory, Inc.

page 1 of 1 FORM II VOA-1

NETLAB

Volatile Organics Laboratory Control Spike

Date Analyzed: 06/15/2010 **Sample ID: VLCS061510**

Compound	Spike Added (ug/L)	Spike Result (ug/L)	Recovery, %	Lower Control Limit, %	Upper Control Limit, %
1,1-Dichloroethene	50 0	36.5	73	70	130
Benzene	50 0	52 6	105	70	130
Trichloroethene	50.0	45.0	90	70	130
Toluene	50 0	47.7	95	70	130
Chlorobenzene	50 0	47.2	94	70	130

V0610-18

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Ave.
North Providence, RI 02904
1-888-863-8522

CHAIN OF CUSTODY RECORD

PROJ. NO: 3120
PROJECT NAME/LOCATION: 515 Somerville Ave, Somerville MA
CLIENT: Action Env.
REPORT TO: Carlson, Houghton
INVOICE TO: Clemmons

DATE	TIME	COMP	GRAB	SAMPLE ID	AQUEOUS	SOIL	OTHER	NO. OF CONTAINERS	PRESERVATIVE	EPH	VPH	VOCs (8260)	REMARKS
6/9/10	1015		✓	AE-101	✓			3	HCL	✓	✓		
	1035		✓	AE-102	✓			3		✓	✓	✓	
	1100		✓	AE-103	✓			3		✓	✓		
	1125		✓	AE-104	✓			3		✓	✓		
	1215		✓	AE-106	✓			3		✓	✓		
	1240		✓	AE-107	✓			3					
	110		✓	AE-108	✓			3		✓	✓	✓	
	140		✓	AE-109	✓			3		✓	✓	✓	

Sampled by (Signature)	Date/Time 6/9/10 300	Received by (Signature)	Date/Time	Laboratory Remarks: Temp received: 4°C Cooled ☐	Special Instructions: List Specific Detection Limit Requirements: MCP GW 2,3
Relinquished by (Signature)	Date/Time 6/10/10 1040	Received by (Signature) Robert Rue	Date/Time 6/10/10 10:10		
Relinquished by (Signature) Robert Rue	Date/Time 6/10/10 3:30	Received at Laboratory by (Signature)	Date/Time 6/10/10 3:30		Turnaround (Business Days) 5

NETLAB

REPORT OF ANALYTICAL RESULTS

NETLAB Case Number V0910-31

Prepared for:

Attn: Robert Houghton
Action Environmental, Inc.
184 Riverview Ave.
Waltham, MA 02453

Report Date: September 17, 2010

Lab # RI010

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue, North Providence, RI 02904
(401) 353-3420

MassDEP Analytical Protocol Certification Form

Laboratory Name New England Testing Laboratory, Inc.	Project #: 3120
Project Location. 515 Somerville Ave, Somerville, MA	RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
V0910-31

Matrices x Groundwater/Surface Water Soil/Sediment Drinking Water Air Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A x	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A x	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B x	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	Other

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	X Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	X Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	X Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	X Yes No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	X Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	X Yes No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	X Yes No[1]

***Data User Note**: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.*

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	X Yes No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	X Yes No[1]

[1] All negative responses must be addressed in an attached laboratory narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: **Position:** Laboratory Director

Printed Name: Richard Warila **Date:** 9/17/2010

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The samples listed in Table I were submitted to New England Testing Laboratory on September 10, 2010. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. This report of analytical results pertains only to the sample(s) provide to us by the client which are indicated on the custody record The case number for this sample submission is V0910-31.

Custody records are included in this report.

Site: 515 Somerville Ave, Somerville, MA

TABLE I, Samples Submitted

Sample ID	Date Sampled	Matrix	Analysis Requested
AE-101	9/9/10	Water	Table II
AE-102	9/9/10	Water	Table II, III
AE-103	9/9/10	Water	Table II
AE-104	9/9/10	Water	Table II
AE-106	9/9/10	Water	Table II
AE-107	9/9/10	Water	Table II
AE-108	9/9/10	Water	Table II, III
AE-109	9/9/10	Water	Table II, III

TABLE II, Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
VPH	NA	*
EPH	NA	**

TABLE III, Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
Volatile Organic Compounds	5030	8260B

These methods are documented in:

*Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MADEP

**Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MADEP

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, USEPA/OSW

NETLAB New England Testing Laboratory, Inc.

CASE NARRATIVE:

Sample Receipt:

No trip blank was supplied No field blank was supplied y. (This does not qualify the analytical results but does prevent conducting these SW-846 {Chapter 1, Section 3.4} QA Audits)

The samples were all appropriately cooled and preserved upon receipt.

The samples were received in the appropriate containers.

The chain of custody was adequately completed and corresponded to the samples submitted

EPH

All samples were extracted and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria

Volatile Organic Compounds:

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria

VPH

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria

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RESULTS: EXTRACTABLE PETROLEUM HYDROCARBONS

Results for EPH analysis are presented in the following section. Each page is electronically signed.

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	_ N/A X pH<2 _ pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-101
Method for Target Analytes:		Lab ID		V0910-31
EPH Surrogate Standards		Date Collected		9/9/10
Aliphatic: Chlorooctadecane		Date Received		9/10/10
Aromatic: o-Terphenyl		Date Extracted		9/15/10
EPH Fractionation Surrogates		Date Analyzed		9/15/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics^1		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons^1		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons^1		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons^{1,2}		150	ug/L	<150
Aliphatic Surrogate % Recovery				58
Aromatic Surrogate % Recovery				74
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				77
Fractionation Surrogate % Recovery				46
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 9/17/2010

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	_ N/A X pH<2 _ pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-102
Method for Target Analytes:		Lab ID		V0910-31
EPH Surrogate Standards		Date Collected		9/9/10
Aliphatic: Chlorooctadecane		Date Received		9/10/10
Aromatic: o-Terphenyl		Date Extracted		9/15/10
EPH Fractionation Surrogates		Date Analyzed		9/15/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics^1		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons^1		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons^1		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons^{1,2}		150	ug/L	<150
Aliphatic Surrogate % Recovery				42
Aromatic Surrogate % Recovery				80
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				108
Fractionation Surrogate % Recovery				91
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 9/17/2010

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-103
Method for Target Analytes:		Lab ID		V0910-31
EPH Surrogate Standards		Date Collected		9/9/10
Aliphatic: Chlorooctadecane		Date Received		9/10/10
Aromatic: o-Terphenyl		Date Extracted		9/15/10
EPH Fractionation Surrogates		Date Analyzed		9/15/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics^1		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons^1		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons^1		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons^{1,2}		150	ug/L	<150
Aliphatic Surrogate % Recovery				44
Aromatic Surrogate % Recovery				69
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				104
Fractionation Surrogate % Recovery				66
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 9/17/2010

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	_ N/A X pH<2 _ pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-104
Method for Target Analytes:		Lab ID		V0910-31
EPH Surrogate Standards		Date Collected		9/9/10
Aliphatic: Chlorooctadecane		Date Received		9/10/10
Aromatic: o-Terphenyl		Date Extracted		9/15/10
EPH Fractionation Surrogates		Date Analyzed		9/15/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics^1		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons^1		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons^1		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons^{1,2}		150	ug/L	<150
Aliphatic Surrogate % Recovery				65
Aromatic Surrogate % Recovery				90
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				115
Fractionation Surrogate % Recovery				82
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 9/17/2010

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:
Containers	X Satisfactory _ Broken _ Leaking
Aqueous Preservatives	_ N/A X pH≤2 _ pH>2 Comment:
Temperature	X Received on Ice _ Received at 4 ° C _ Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1			Client ID	AE-106
Method for Target Analytes:			Lab ID	V0910-31
EPH Surrogate Standards			Date Collected	9/9/10
Aliphatic: Chlorooctadecane			Date Received	9/10/10
Aromatic: o-Terphenyl			Date Extracted	9/15/10
EPH Fractionation Surrogates			Date Analyzed	9/15/10
2-Fluorobiphenyl			Dilution Factor	1X
2-Bromonaphthalene			% Moisture (soil)	N/A
RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				60
Aromatic Surrogate % Recovery				94
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				101
Fractionation Surrogate % Recovery				106
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: ________ POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 9/17/2010

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:
Containers	X Satisfactory _ Broken _ Leaking
Aqueous Preservatives	_ N/A X pH≤2 _ pH>2 Comment:
Temperature	X Received on Ice _ Received at 4 ° C _ Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1			Client ID	AE-107
Method for Target Analytes:			Lab ID	V0910-31
EPH Surrogate Standards			Date Collected	9/9/10
Aliphatic: Chlorooctadecane			Date Received	9/10/10
Aromatic: o-Terphenyl			Date Extracted	9/15/10
EPH Fractionation Surrogates			Date Analyzed	9/15/10
2-Fluorobiphenyl			Dilution Factor	1X
2-Bromonaphthalene			% Moisture (soil)	N/A
RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				68
Aromatic Surrogate % Recovery				91
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				102
Fractionation Surrogate % Recovery				70
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: ________ POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 9/17/2010

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:
Containers	X Satisfactory _ Broken _ Leaking
Aqueous Preservatives	_ N/A X pH≤2 _ pH>2 Comment:
Temperature	X Received on Ice _ Received at 4 ° C _ Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1			Client ID	AE-108
Method for Target Analytes:			Lab ID	V0910-31
EPH Surrogate Standards			Date Collected	9/9/10
Aliphatic: Chlorooctadecane			Date Received	9/10/10
Aromatic: o-Terphenyl			Date Extracted	9/15/10
EPH Fractionation Surrogates			Date Analyzed	9/15/10
2-Fluorobiphenyl			Dilution Factor	1X
2-Bromonaphthalene			% Moisture (soil)	N/A
RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				42
Aromatic Surrogate % Recovery				94
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				104
Fractionation Surrogate % Recovery				88
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: ________ POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 9/17/2010

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:
Containers	X Satisfactory _ Broken _ Leaking:
Aqueous Preservatives	_ N/A X pH≤2 _ pH>2 Comment:
Temperature	X Received on Ice _ Received at 4 ° C _ Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1			Client ID	AE-109
Method for Target Analytes:			Lab ID	V0910-31
EPH Surrogate Standards			Date Collected	9/9/10
Aliphatic: Chlorooctadecane			Date Received	9/10/10
Aromatic: o-Terphenyl			Date Extracted	9/15/10
EPH Fractionation Surrogates			Date Analyzed	9/15/10
2-Fluorobiphenyl			Dilution Factor	1X
2-Bromonaphthalene			% Moisture (soil)	N/A
RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				60
Aromatic Surrogate % Recovery				71
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				82
Fractionation Surrogate % Recovery				42
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: ________ POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 9/17/2010

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	_ Satisfactory _ Broken _ Leaking:
Aqueous Preservatives	_ N/A _ pH<2 _ pH>2 Comment:
Temperature	Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		Method Blank
Method for Target Analytes:		Lab ID		V0910-31
EPH Surrogate Standards		Date Collected		NA
Aliphatic: Chlorooctadecane		Date Received		NA
Aromatic: o-Terphenyl		Date Extracted		9/15/10
EPH Fractionation Surrogates		Date Analyzed		9/15/10
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				55
Aromatic Surrogate % Recovery				73
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				78
Fractionation Surrogate % Recovery				57
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE:
POSITION: Laboratory Director
PRINTED NAME: Richard Warila
DATE: 9/17/2010

```
              Spike Recovery and RPD Summary Report - WATER

Method        : C:\HPCHEM\1\METHODS\EPHALI.M (Chemstation Integrator)
Title         :
Last Update   : Fri Jul 30 08:57:59 2010
Response via  : Initial Calibration

Non-Spiked Sample:  J091503.D

          Spike                                   Spike
          Sample                                  Duplicate Sample
------------------------------------------------------------------------
File ID :  J091504.D                             | J091505.D
Sample  :  LEW 9-15                              | LEWD 9-15
Acq Time:  15 Sep 2010  11:23 am                 | 15 Sep 2010  11:54 am
------------------------------------------------------------------------

Compound                 Sample Spike Spike  Dup  Spike  Dup  RPD    QC Limits
                          Conc  Added  Res   Res  %Rec  %Rec       RPD  % Rec
------------------------------------------------------------------------
Nonane                   | 0.0 |  40 |  15 |  13 |  38 |  33 | 13 | 25 | 30-140|
Decane                   | 0.0 |  40 |  21 |  16 |  51 |  41 | 22 | 25 | 40-140|
Dodecane                 | 0.0 |  40 |  24 |  19 |  60 |  47 | 24 | 25 | 40-140|
Tetradecane              | 0.0 |  40 |  25 |  20 |  62 |  51 | 20 | 25 | 40-140|
Hexadecane               | 0.0 |  40 |  29 |  24 |  73 |  61 | 19 | 25 | 40-140|
Octadecane               | 0.0 |  40 |  32 |  26 |  81 |  66 | 20 | 25 | 40-140|
Nonadecane               | 0.0 |  40 |  31 |  24 |  78 |  61 | 25 | 25 | 40-140|
Eicosane                 | 0.0 |  40 |  34 |  28 |  86 |  71 | 20 | 25 | 40-140|
Docosane                 | 0.0 |  40 |  35 |  28 |  87 |  70 | 21 | 25 | 40-140|
Tetracosane              | 0.0 |  40 |  34 |  28 |  85 |  69 | 21 | 25 | 40-140|
Hexacosane               | 0.0 |  40 |  34 |  27 |  84 |  67 | 23 | 25 | 40-140|
Octacosane               | 0.0 |  40 |  34 |  28 |  85 |  69 | 21 | 25 | 40-140|
Triacontane              | 0.0 |  40 |  35 |  28 |  87 |  71 | 21 | 25 | 40-140|
Hexatriacontane          | 0.0 |  40 |  33 |  26 |  82 |  66 | 22 | 25 | 40-140|
------------------------------------------------------------------------

  # - Fails Limit Check


          EPHALI.M       Wed Sep 15 12:38:14 2010
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              Spike Recovery and RPD Summary Report - WATER

Method        : C:\HPCHEM\2\METHODS\ARO.M (Chemstation Integrator)
Title         :
Last Update   : Mon Aug 09 08:17:24 2010
Response via  : Initial Calibration

Non-Spiked Sample:  F091505.D

          Spike                                   Spike
          Sample                                  Duplicate Sample
------------------------------------------------------------------------
File ID :  F091503.D                             | F091504.D
Sample  :  LEW 9-15                              | LEWD 9-15
Acq Time:  15 Sep 2010  11:28 am                 | 15 Sep 2010  12:11 pm
------------------------------------------------------------------------

Compound                 Sample Spike Spike  Dup  Spike  Dup  RPD    QC Limits
                          Conc  Added  Res   Res  %Rec  %Rec       RPD  % Rec
------------------------------------------------------------------------
Naphthalene              | 0.0 |  40 |  32 |  26 |  81 |  66 | 20 | 25 | 40-140|
2 methyl naphthalene     | 0.0 |  40 |  28 |  23 |  69 |  57 | 19 | 25 | 40-140|
acenaphthylene           | 0.0 |  40 |  33 |  27 |  82 |  66 | 21 | 25 | 40-140|
Acenaphthene             | 0.0 |  40 |  35 |  28 |  88 |  69 | 24 | 25 | 40-140|
fluorene                 | 0.0 |  40 |  35 |  29 |  88 |  72 | 20 | 25 | 40-140|
phenanthrene             | 0.0 |  40 |  36 |  29 |  89 |  73 | 20 | 25 | 40-140|
Anthracene               | 0.0 |  40 |  40 |  33 | 101 |  82 | 20 | 25 | 40-140|
Fluoranthene             | 0.0 |  40 |  40 |  32 |  99 |  81 | 21 | 25 | 40-140|
Pyrene                   | 0.0 |  40 |  42 |  35 | 106 |  87 | 20 | 25 | 40-140|
Benzo(a)anthracene       | 0.0 |  40 |  40 |  32 | 100 |  81 | 21 | 25 | 40-140|
Chrysene                 | 0.0 |  40 |  45 |  37 | 113 |  92 | 21 | 25 | 40-140|
Benzo(b)fluoranthene     | 0.0 |  40 |  39 |  31 |  97 |  77 | 23 | 25 | 40-140|
Benzo(k)fluoranthene     | 0.0 |  40 |  44 |  36 | 109 |  90 | 20 | 25 | 40-140|
Benzo(a)pyrene           | 0.0 |  40 |  40 |  32 |  99 |  80 | 22 | 25 | 40-140|
Indeno(123cd)pyrene      | 0.0 |  40 |  30 |  30 |  76 |  76 |  1 | 25 | 40-140|
Dibenzo(ah)anthracen     | 0.0 |  40 |  38 |  32 |  95 |  79 | 19 | 25 | 40-140|
Benzo(ghi)perylene       | 0.0 |  40 |  34 |  29 |  86 |  72 | 17 | 25 | 40-140|
------------------------------------------------------------------------

  # - Fails Limit Check


          ARO.M          Wed Sep 15 15:15:16 2010
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RESULTS: VOLATILE ORGANIC COMPOUNDS

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Organics Analysis Department certifies that the samples included in this section have been prepared and analyzed using the procedures cited and that the results have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.. V0910-31
Method. 8260
Matrix (soil/water) WATER
Sample wt/vol 5.0 (g/ml) ML
% Moisture
Soil Extract Volume. (uL)
Analyst's Initials.

Client Name: Action Environmental, Inc
Lab Sample ID: AE-102
Lab File ID: C091716.D
Date Sampled: 9/9/2010
Date Analyzed: 9/17/2010
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	1.0	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0910-31
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental, Inc
Lab Sample ID: AE-102
Lab File ID: C091716.D
Date Sampled: 9/9/2010
Date Analyzed: 9/17/2010
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	p-Isopropyltoluene	1.0	U
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0910-31
Method: 8260
Matrix (soil/water) WATER
Sample wt/vol 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials

Client Name: Action Environmental, Inc
Lab Sample ID: AE-108
Lab File ID: C091515.D
Date Sampled 9/9/2010
Date Analyzed: 9/15/2010
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO	COMPOUND	UNITS: ug/L	Q
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	1.0	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0910-31
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental, Inc
Lab Sample ID: AE-108
Lab File ID: C091515.D
Date Sampled: 9/9/2010
Date Analyzed: 9/15/2010
Dilution Factor: 1.0
Soil Aliquot Volume. (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	p-Isopropyltoluene	1.0	U
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0910-31
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental, Inc
Lab Sample ID: AE-109
Lab File ID: C091516.D
Date Sampled: 9/9/2010
Date Analyzed: 9/15/2010
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	1.0	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0910-31
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental, Inc
Lab Sample ID: AE-109
Lab File ID: C091516.D
Date Sampled: 9/9/2010
Date Analyzed: 9/15/2010
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	5.9	
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	14	
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	92	
135-98-8	sec-Butylbenzene	8.4	
99-87-6	p-Isopropyltoluene	1.7	
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	2.6	
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.9	
87-61-6	1,2,3-Trichlorobenzene	1.0	U

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New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0910-31
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental, Inc
Lab Sample ID: VBLK091510
Lab File ID: C091506.D
Date Sampled: 9/9/2010
Date Analyzed: 9/15/2010
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	1.0	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0910-31
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental, Inc
Lab Sample ID: VBLK091510
Lab File ID: C091506.D
Date Sampled: 9/9/2010
Date Analyzed: 9/15/2010
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	p-Isopropyltoluene	1.0	U
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

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New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.	V0910-31	Client Name:	Action Environmental, Inc
Method	8260	Lab Sample ID:	VBLK091710
Matrix (soil/water)	WATER	Lab File ID:	C091715.D
Sample wt/vol:	5.0 (g/ml) ML	Date Sampled:	9/9/2010
% Moisture		Date Analyzed:	9/17/2010
Soil Extract Volume	(uL)	Dilution Factor:	1.0
Analyst's Initials		Soil Aliquot Volume:	(uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	1.0	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.:	V0910-31	Client Name:	Action Environmental, Inc
Method:	8260	Lab Sample ID:	VBLK091710
Matrix: (soil/water)	WATER	Lab File ID:	C091715.D
Sample wt/vol:	5.0 (g/ml) ML	Date Sampled:	9/9/2010
% Moisture		Date Analyzed:	9/17/2010
Soil Extract Volume.	(uL)	Dilution Factor:	1.0
Analyst's Initials:		Soil Aliquot Volume:	(uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	p-Isopropyltoluene	1.0	U
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

2A
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name New England Testing Laboratory Contract: 515 Somerville Av

Lab Code RI010 Case No.: V0910-31 SAS No.: Action SDG No.: Action Env

	EPA SAMPLE NO	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	LCS091510	105	90	104	0
02	LCSD091510	120	102	102	0
03	VBLK091510	92	102	100	0
04	AE 108	89	81	89	0
05	AE 109	113	88	88	0
06	LCS091710	102	98	101	0
07	LCSD091710	96	96	107	0
08	VBLK091710	118	79	92	0
09	AE 102	112	85	92	0

			QC LIMITS
SMC1	=	4 Bromofluorobenzene	(70-130)
SMC2	=	Toluene-D8	(70-130)
SMC3	=	1,2 Dichloroethane-D4	(70-130)

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D System Monitoring Compound diluted out

New England Testing Laboratory Inc

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Volatile Organics LCS and LCSD Duplicate Results

LCS091510

Compound	LCS True Value	LCS Result	Recovery, %	LCSD True Value	LCSD Result	Recovery, %	Recovery QC Limits	Units	RPD, %	RPD Limits
Dichlorodifluoromethane	50	55.6	111	50	55.5	111	70-130%	ug/L	0.2	20.0
Chloromethane	50	60.2	120	50	61.4	123	70-130%	ug/L	2.0	20.0
Vinyl Chloride	50	50.8	102	50	54.8	110	70-130%	ug/L	7.6	20.0
Bromomethane	50	45.7	91	50	43.5	87	70-130%	ug/L	4.7	20.0
Chloroethane	50	39.8	80	50	39.2	78	70-130%	ug/L	1.5	20.0
Trichlorofluoromethane	50	40.3	81	50	40.5	81	70-130%	ug/L	0.4	20.0
1,1-Dichloroethene	50	46.0	92	50	45.0	90	70-130%	ug/L	2	20.0
Carbon Disulfide	50	41.9	84	50	40.7	81	70-130%	ug/L	2.8	20.0
Methylene Chloride	50	44.0	88	50	43.9	88	70-130%	ug/L	0.3	20.0
Acetone	50	39.5	79	50	38.2	76	70-130%	ug/L	3.3	20.0
Trans-1,2-dichloroethene	50	50.9	102	50	52.8	106	70-130%	ug/L	3.7	20.0
Tert-butyl Methyl Ether	50	49.0	98	50	51.6	103	70-130%	ug/L	5.0	20.0
Diisopropyl Ether	50	54.6	109	50	53.9	108	70-130%	ug/L	1.2	20.0
1,1-Dichloroethane	50	44.2	88	50	49.4	99	70-130%	ug/L	11.1	20.0
Ethyl Tery-butyl Ether	50	42.5	85	50	45.3	91	70-130%	ug/L	6.4	20.0
Cis-1,2-dichloroethene	50	41.5	83	50	41.2	82	70-130%	ug/L	0.7	20.0
2,2-Dichloropropane	50	50.3	101	50	49.5	99	70-130%	ug/L	1.6	20.0
Bromochloromethane	50	46.9	94	50	46.6	93	70-130%	ug/L	0.6	20.0
Chloroform	50	42.9	86	50	46.6	93	70-130%	ug/L	0.2	20.0
Carbon Tetrachloride	50	[illegible]	90	50	46.7	93	70-130%	ug/L	4.7	20.0
1,1,1-Trichloroethane	50	46.3	93	50	47.3	95	70-130%	ug/L	2.2	20.0
2-Butanone	50	48.6	97	50	50.3	101	70-130%	ug/L	3.4	20.0
1,1-Dichloropropene	50	45.6	91	50	48.4	97	70-130%	ug/L	5.9	20.0
Benzene	50	44.0	88	50	46.6	93	70-130%	ug/L	5.7	20.0
Tert-butyl Alcohol	50	47.7	95	50	57.3	115	70-130%	ug/L	18.2	20.0
Tert-amyl Methyl Ether	50	46.8	94	50	45.2	90	70-130%	ug/L	3.5	20.0
1,2-Dichloroethane	50	42.6	85	50	44.4	89	70-130%	ug/L	4.3	20.0
Trichloroethene	50	44.8	90	50	45.9	92	70-130%	ug/L	2.6	20.0
Dibromomethane	50	43.8	88	50	47.9	96	70-130%	ug/L	8.9	20.0
1,2-Dichloropropane	50	44.8	90	50	48.8	98	70-130%	ug/L	8.4	20.0
Bromodichloromethane	50	42.9	86	50	42.1	84	70-130%	ug/L	1.8	20.0
Cis-1,3-dichloropropene	50	48.7	97	50	47.8	96	70-130%	ug/L	1.9	20.0
2-CEVE	50	45.5	91	50	49.0	98	70-130%	ug/L	7.6	20.0
Toluene	50	38.7	77	50	41.5	83	70-130%	ug/L	7.3	20.0
4-Methyl-2-Pentanone	50	35.5	71	50	35.8	72	70-130%	ug/L	0.7	20.0
Tetrachloroethene	50	43.7	87	50	41.9	84	70-130%	ug/L	4.3	20.0
Trans-1,3-Dichloropropene	50	39.5	79	50	42.6	85	70-130%	ug/L	7.6	20.0
1,1,2-Trichloroethane	50	40.9	82	50	40.5	81	70-130%	ug/L	0.9	20.0
Dibromochloromethane	50	45.1	90	50	44.9	90	70-130%	ug/L	12.7	20.0
1,3-Dichloropropane	50	40.2	80	50	45.6	91	70-130%	ug/L	12.6	20.0
1,2-Dibromoethane	50	42.0	84	50	46.1	92	70-130%	ug/L	9.2	20.0
2-Hexanone	50	31.8	64	50	26.8	54	70-130%	ug/L	17.0	20.0
Chlorobenzene	50	42.1	84	50	45.4	91	70-130%	ug/L	7.6	20.0
Ethylbenzene	50	43.1	86	50	47.3	95	70-130%	ug/L	9.2	20.0
m,p-Xylene	100	88.3	88	100	93.2	93	70-130%	ug/L	5.4	20.0
1,1,1,2-Tetrachloroethane	50	45.5	91	50	48.3	97	70-130%	ug/L	6.0	20.0
o-Xylene	50	47.5	95	50	49.3	99	70-130%	ug/L	3.7	20.0
Styrene	50	44.3	89	50	43.2	86	70-130%	ug/L	2.3	20.0
Bromoform	50	51.3	103	50	50.3	101	70-130%	ug/L	2.0	20.0
Isopropylbenzene	50	40.4	81	50	41.8	84	70-130%	ug/L	3.4	20.0
Bromobenzene	50	42.0	84	50	48.3	97	70-130%	ug/L	13.9	20.0
n-Propylbenzene	50	45.3	91	50	47.7	95	70-130%	ug/L	5.1	20.0
1,1,2,2-Tetrachloroethane	50	47.1	94	50	54.7	109	70-130%	ug/L	15.3	20.0
2-Chlorotoluene	50	46.1	92	50	47.8	96	70-130%	ug/L	0.5	20.0
1,2,3-Trichloropropane	50	44.0	88	50	46.1	92	70-130%	ug/L	4.8	20.0
1,3,5-Trimethylbenzene	50	40.9	82	50	46.0	92	70-130%	ug/L	11.8	20.0
4-Chlorotoluene	50	45.4	91	50	47.2	94	70-130%	ug/L	4.0	20.0
Tert-butylbenzene	50	40.9	82	50	41.3	83	70-130%	ug/L	0.9	20.0
1,2,4-Trimethylbenzene	50	39.0	78	50	41.9	84	70-130%	ug/L	7.2	20.0
Sec-butylbenzene	50	42.4	85	50	44.4	89	70-130%	ug/L	4.4	20.0
p-Isopropyltoluene	50	36.6	73	50	38.7	77	70-130%	ug/L	5.7	20.0
1,3-Dichlorobenzene	50	38.9	78	50	41.3	83	70-130%	ug/L	6.1	20.0
1,4-Dichlorobenzene	50	44.5	89	50	45.5	91	70-130%	ug/L	2.3	20.0
n-Butylbenzene	50	40.5	81	50	37.7	75	70-130%	ug/L	6.9	20.0
1,2-Dichlorobenzene	50	45.0	90	50	47.0	94	70-130%	ug/L	4.4	20.0
1,2-Dibromo-3-chloroprop	50	40.6	81	50	40.0	80	70-130%	ug/L	1.5	20.0
Hexachlorobutadiene	50	37.7	75	50	36.7	73	70-130%	ug/L	2.7	20.0
1,2,4-Trichlorobenzene	50	36.1	72	50	35.6	71	70-130%	ug/L	1.4	20.0
Naphthalene	50	40.0	80	50	36.7	73	70-130%	ug/L	8.5	20.0
1,2,3-Trichlorobenzene	50	35.3	71	50	35.9	72	70-130%	ug/L	1.7	20.0

Volatile Organics LCS and LCSD Duplicate Results

LCS091710

Compound	LCS True Value	LCS Result	Recovery, %	LCSD True Value	LCSD Result	Recovery, %	Recovery QC Limits	Units	RPD, %	RPD Limits
Dichlorodifluoromethane	50	48.4	97	50	42.6	85	70-130%	ug/L	12.6	20.0
Chloromethane	50	50.8	102	50	44.2	88	70-130%	ug/L	13.7	20.0
Vinyl Chloride	50	55.3	111	50	49.7	99	70-130%	ug/L	10.6	20.0
Bromomethane	50	61.9	124	50	61.8	124	70-130%	ug/L	0.2	20.0
Chloroethane	50	57.5	115	50	59.3	119	70-130%	ug/L	3.1	20.0
Trichlorofluoromethane	50	54.2	108	50	50.8	102	70-130%	ug/L	6.4	20.0
Diethyl Ether	50	48.6	97	50	48.9	98	70-130%	ug/L	1	20.0
1,1-Dichloroethene	50	51.8	104	50	49.3	99	70-130%	ug/L	5.0	20.0
Carbon Disulfide	50	55.5	111	50	51.9	104	70-130%	ug/L	6.7	20.0
Methylene Chloride	50	50.8	102	50	49.0	98	70-130%	ug/L	3.6	20.0
Acetone	50	57.4	115	50	63.2	126	70-130%	ug/L	9.7	20.0
Trans 1,2 dichloroethene	50	53.3	107	50	50.4	101	70-130%	ug/L	5.7	20.0
Tert butyl Methyl Ether	50	50.1	100	50	50.2	100	70-130%	ug/L	0.1	20.0
Diisopropyl Ether	50	52.0	104	50	50.4	101	70-130%	ug/L	3.1	20.0
1,1 Dichloroethane	50	51.9	104	50	49.2	98	70-130%	ug/L	5.4	20.0
Ethyl Tery-butyl Ether	50	50.4	101	50	50.5	101	70-130%	ug/L	0.2	20.0
Cis 1,2 dichloroethene	50	46.2	92	50	48.1	96	70-130%	ug/L	4.0	20.0
2,2-Dichloropropane	50	55.4	111	50	51.8	104	70-130%	ug/L	6.7	20.0
Bromochloromethane	50	50.7	101	50	47.6	95	70-130%	ug/L	6.3	20.0
Chloroform	50	50.0	100	50	47.4	95	70-130%	ug/L	5.3	20.0
Carbon Tetrachloride	50	52.5	105	50	49.3	99	70-130%	ug/L	6.4	20.0
Tetrahydrofuran	50	48.2	96	50	39.7	79	70-130%	ug/L	19.3	20.0
1,1,1-Trichloroethane	50	51.3	103	50	47.9	96	70-130%	ug/L	6.7	20.0
2 Butanone	50	55.4	111	50	58.0	116	70-130%	ug/L	4.6	20.0
1,1-Dichloropropene	50	49.0	98	50	48.3	97	70-130%	ug/L	1.6	20.0
Benzene	50	50.9	102	50	49.4	99	70-130%	ug/L	2.9	20.0
Tert butyl Alcohol	50	54.5	109	50	43.3	87	70-130%	ug/L	22.7	20.0
Tert-amyl Methyl Ether	50	47.8	96	50	47.0	94	70-130%	ug/L	1.7	20.0
1,2-Dichloroethane	50	47.8	96	50	47.9	96	70-130%	ug/L	0.3	20.0
Trichloroethene	50	50.4	101	50	48.4	97	70-130%	ug/L	4.0	20.0
Dibromomethane	50	47.6	95	50	47.1	94	70-130%	ug/L	0.9	20.0
1,2-Dichloropropane	50	48.8	98	50	46.8	94	70-130%	ug/L	4.2	20.0
Bromodichloromethane	50	48.4	97	50	47.4	95	70-130%	ug/L	2.0	20.0
Cis-1,3-dichloropropene	50	60.5	121	50	60.7	121	70-130%	ug/L	0.4	20.0
2-CEVE	50	57.4	115	50	53.6	107	70-130%	ug/L	6.9	20.0
Toluene	50	52.3	105	50	48.8	98	70-130%	ug/L	6.8	20.0
4 Methyl 2-Pentanone	50	51.2	102	50	50.7	101	70-130%	ug/L	0.8	20.0
Tetrachloroethene	50	49.5	99	50	47.1	94	70-130%	ug/L	5.1	20.0
Trans-1,3-Dichloropropene	50	56.8	114	50	55.8	112	70-130%	ug/L	1.7	20.0
1,1,2-Trichloroethane	50	59.5	119	50	54.1	108	70-130%	ug/L	9.6	20.0
Dibromochloromethane	50	62.1	124	50	58.0	116	70-130%	ug/L	6.9	20.0
1,3-Dichloropropane	50	57.4	115	50	55.5	111	70-130%	ug/L	3.4	20.0
1,2 Dibromoethane	50	60.4	121	50	59.9	120	70-130%	ug/L	0.8	20.0
2 Hexanone	50	49.4	99	50	45.1	90	70-130%	ug/L	9.1	20.0
Chlorobenzene	100	49.6	50	100	44.9	45	70-130%	ug/L	10.0	20.0
Ethylbenzene	50	44.4	89	50	41.2	82	70-130%	ug/L	7.5	20.0
m,p Xylene	50	89.3	179	50	81.2	162	70-130%	ug/L	9.5	20.0
1,1,1,2-Tetrachloroethane	50	51.7	103	50	46.0	92	70-130%	ug/L	11.6	20.0
o-Xylene	50	51.9	104	50	47.9	96	70-130%	ug/L	8.0	20.0
Styrene	50	56.7	113	50	54.3	109	70-130%	ug/L	4.3	20.0
Bromoform	50	54.7	109	50	51.7	103	70-130%	ug/L	5.6	20.0
Isopropylbenzene	50	55.5	111	50	51.2	102	70-130%	ug/L	8.2	20.0
Bromobenzene	50	56.6	113	50	55.5	111	70-130%	ug/L	2.0	20.0
n Propylbenzene	50	46.2	92	50	42.5	85	70-130%	ug/L	8.2	20.0
1,1,2,2-Tetrachloroethene	50	51.7	103	50	45.8	92	70-130%	ug/L	12.1	20.0
2-Chlorotoluene	50	44.0	88	50	40.3	81	70-130%	ug/L	8.8	20.0
1,2,3-Trichloropropane	50	50.1	100	50	48.8	98	70-130%	ug/L	2.5	20.0
1,3,5-Trimethylbenzene	50	41.3	83	50	38.7	77	70-130%	ug/L	6.4	20.0
4-Chlorotoluene	50	43.8	88	50	40.7	81	70-130%	ug/L	7.3	20.0
Tert-butylbenzene	50	47.3	95	50	44.6	89	70-130%	ug/L	5.9	20.0
1,2,4 Trimethylbenzene	50	41.7	83	50	38.6	77	70-130%	ug/L	7.7	20.0
Sec-butylbenzene	50	40.9	82	50	37.3	75	70-130%	ug/L	9.2	20.0
p-Isopropyltoluene	50	40.1	80	50	37.3	75	70-130%	ug/L	7.3	20.0
1,3-Dichlorobenzene	50	42.6	85	50	39.2	78	70-130%	ug/L	8.3	20.0
1,4-Dichlorobenzene	50	47.4	95	50	46.7	93	70-130%	ug/L	1.6	20.0
n Butyl Bezene	50	55.2	110	50	52.1	104	70-130%	ug/L	5.7	20.0
1,2 Dichlorbenzene	50	44.5	89	50	44.7	89	70-130%	ug/L	0.4	20.0
1,2-Dibromo-3-chloropr	50	47.7	95	50	51.0	102	70-130%	ug/L	6.6	20.0
Hexachlorobutadiene	50	47.1	94	50	45.4	91	70-130%	ug/L	3.6	20.0
1,2,4 Trichlorobenzene	50	44.1	88	50	43.2	86	70-130%	ug/L	1.9	20.0
Naphthalene	50	53.3	107	50	58.4	117	70-130%	ug/L	9.1	20.0
1,2,3-Trichlorobenzene	50	49.8	100	50	52.2	104	70-130%	ug/L	4.8	20.0

RESULTS: VOLATILE PETROLEUM HYDROCARBONS

Results for VPH analysis are presented in the following section. Each page is electronically signed.

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-101
Method for Target Analytes:		Lab ID		V0910-31
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene		Date Collected		9/9/10
		Date Received		9/10/10
		Date Analyzed		9/13/10
		Dilution Factor		1X
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				107
FID Surrogate % Recovery				97
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: ______ POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 9/17/2010

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-102
Method for Target Analytes:		Lab ID		V0910-31
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene		Date Collected		9/9/10
		Date Received		9/10/10
		Date Analyzed		9/13/10
		Dilution Factor		1X
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				110
FID Surrogate % Recovery				100
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: ______ POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 9/17/2010

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	AE-103
Method for Target Analytes:			Lab ID	V0910-31
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene			Date Collected	9/9/10
			Date Received	9/10/10
			Date Analyzed	9/13/10
			Dilution Factor	1X
			% Moisture (soil)	NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				107
FID Surrogate % Recovery				98
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 9/17/2010

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	AE-104
Method for Target Analytes:			Lab ID	V0910-31
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene			Date Collected	9/9/10
			Date Received	9/10/10
			Date Analyzed	9/13/10
			Dilution Factor	1X
			% Moisture (soil)	NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				104
FID Surrogate % Recovery				93
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

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SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 9/17/2010

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	AE-106
Method for Target Analytes:			Lab ID	V0910-31
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene			Date Collected	9/9/10
			Date Received	9/10/10
			Date Analyzed	9/13/10
			Dilution Factor	1X
			% Moisture (soil)	NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				107
FID Surrogate % Recovery				98
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 9/17/2010

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	AE-107
Method for Target Analytes:			Lab ID	V0910-31
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene			Date Collected	9/9/10
			Date Received	9/10/10
			Date Analyzed	9/13/10
			Dilution Factor	1X
			% Moisture (soil)	NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				107
FID Surrogate % Recovery				92
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 9/17/2010

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-108
Method for Target Analytes:		Lab ID		V0910-31
VPH Surrogate Standards		Date Collected		9/9/10
PID: 2,5- Dibromotoluene		Date Received		9/10/10
FID: 2,5- Dibromotoluene		Date Analyzed		9/13/10
		Dilution Factor		1X
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				109
FID Surrogate % Recovery				91
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

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SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 9/17/2010

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-109
Method for Target Analytes:		Lab ID		V0910-31
VPH Surrogate Standards		Date Collected		9/9/10
PID: 2,5- Dibromotoluene		Date Received		9/10/10
FID: 2,5- Dibromotoluene		Date Analyzed		9/13/10
		Dilution Factor		1X
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	570
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	260
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	310
PID Surrogate % Recovery				104
FID Surrogate % Recovery				108
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

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Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

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PRINTED NAME: Richard Warila DATE: 9/17/2010

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	_ Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	_ Received on Ice _ Received at 4° C _ Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		Method Blank
Method for Target Analytes:		Lab ID		V0910-31
VPH Surrogate Standards		Date Collected		NA
PID: 2,5- Dibromotoluene		Date Received		NA
FID: 2,5- Dibromotoluene		Date Analyzed		9/13/10
		Dilution Factor		1X
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5	ug/L	<5
Ethylbenzene	C9-C12	5	ug/L	<5
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5	ug/L	<5
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				101
FID Surrogate % Recovery				86
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

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Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

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SIGNATURE POSITION Laboratory Director
PRINTED NAME Richard Warila DATE 9/17/2010

```
                Spike Recovery and RPD Summary Report - WATER

Method        : C:\HPCHEM\1\METHODS\VPHQUANT.M (Chemstation Integrator)
Title         :
Last Update   : Tue Sep 14 12:03:25 2010
Response via  : Initial Calibration

Non-Spiked Sample:  D091305.D

          Spike                                   Spike
          Sample                                  Duplicate Sample
--------------------------------------------------------------------------
File ID :  D091302.D                            | D091303.D
Sample  :  LCS091310                            | LCSD091310
Acq Time:  13 Sep 2010  10:41 am                | 13 Sep 2010  11:22 am
--------------------------------------------------------------------------

Compound                 Sample Spike Spike  Dup  Spike  Dup  RPD    QC Limits
                          Conc  Added  Res   Res  %Rec  %Rec       RPD  % Rec
--------------------------------------------------------------------------
Pentane                 | 0.0 |  50 |  55 |  53 | 111 | 107 |  4 | 25 | 70-130|
2-Methyl pentane        | 0.0 |  50 |  59 |  62 | 118 | 124 |  5 | 25 | 70-130|
2,2,4-trimethylpenta| 0.0 |  50 |  62 |  63 | 124 | 126 |  1 | 25 | 70-130|
Nonane                  | 0.0 |  50 |  42 |  42 |  85 |  84 |  1 | 25 | 70-130|
n-decane                | 0.0 |  50 |  53 |  54 | 106 | 109 |  2 | 25 | 70-130|
n-butylcyclohexane      | 0.0 |  50 |  58 |  58 | 116 | 116 |  0 | 25 | 70-130|
MTBE #2                 | 0.0 |  50 |  58 |  58 | 116 | 115 |  1 | 25 | 70-130|
Benzene #2              | 0.0 |  50 |  58 |  59 | 116 | 119 |  3 | 25 | 70-130|
Toluene #2              | 0.0 |  50 |  44 |  46 |  88 |  91 |  4 | 25 | 70-130|
Ethylbenzene #2         | 0.0 |  50 |  47 |  47 |  95 |  93 |  2 | 25 | 70-130|
M&P Xylene #2           | 0.0 | 100 |  90 |  94 |  90 |  94 |  4 | 25 | 70-130|
O Xylene #2             | 0.0 |  50 |  38 |  41 |  75 |  82 |  9 | 25 | 70-130|
1,2,4-Trimethylbenze| 0.0 |  50 |  41 |  43 |  82 |  86 |  4 | 25 | 70-130|
Naphthlene              | 0.0 |  50 |  40 |  45 |  79 |  91 | 13 | 25 | 70-130|
--------------------------------------------------------------------------

  # - Fails Limit Check


          VPHQUANT.M     Fri Sep 17 11:20:51 2010
```

V0410-31

NEW ENGLAND TESTING LABORATORY, INC
1254 Douglas Ave
North Providence RI 02904
1-888-863-8522

CHAIN OF CUSTODY RECORD

PROJ. NO. 3120
PROJECT NAME/LOCATION 515 Somerville Ave, Somerville, MA
CLIENT Action Environmental
REPORT TO Bob Houghton
INVOICE TO Andrea Climens

DATE	TIME	COMP	GRAB	SAMPLE I.D.	AQUEOUS	SOIL	OTHER	NO OF CONTAINERS	PRESERVATIVE	EPH	VPH	VOC's (8260)	REMARKS
9/9/10	1.45		X	AE -101	X			3	HCl	X	X		
	1 10		X	AE -102	X			3		X	X	X	
	12:40		X	AE -103	X			3		X	X		
	12.10		X	AE -104	X			3		X	X		
	10:30		X	AE -106	X			3		X	X		
	11.10		X	AE -107	X			3		X	X		
	11:40		X	AE -108	X			3		X	X	X	
	2:15		X	AE -109	X			3		X	X	X	

Sampled by (Signature)	Date/Time 9/9/10 3.40	Received by (Signature)	Date/Time	Laboratory Remarks Temp. received 5° Cooled ☐
Relinquished by (Signature) Ray Tracy	Date/Time 9/10/10 11:00	Received by (Signature) Lee T Downing	Date/Time 9-10 @ 11:00	
Relinquished by (Signature) Lee T Downing	Date/Time 9-10-10 3 30	Received for Laboratory by (Signature) Kan Schmaling	Date/Time 9/10/10 3.30	

Special Instructions
List Specific Detection
Limit Requirements
MCP GW 2-3

Turnaround (Business Days) 5 business days

NETLAB

REPORT OF ANALYTICAL RESULTS

NETLAB Case Number W0121-12

Prepared for:

Attn: Robert Houghton/Glenn Carlson
Action Environmental, Inc.
184 Riverview Ave.
Waltham, MA 02453

Report Date: January 28, 2011

Lab # RI010

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue, North Providence, RI 02904
(401) 353-3420

MassDEP Analytical Protocol Certification Form

Laboratory Name New England Testing Laboratory — Project #: 3120

Project Location: 515 Somerville Avenue, Somerville, MA — RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s): W0121-12

Matrices: Groundwater/Surface Water x Soil/Sediment Drinking Water Air Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A x	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B x	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

	Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status	
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	X Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	X Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	X Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	X Yes No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	X Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	X Yes No
	Responses to Questions G, H and I below are required for "Presumptive Certainty" status	
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	X Yes No¹
	Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.	
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	X Yes No¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	X Yes No¹

¹All negative responses must be addressed in an attached laboratory narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature:
Position: Laboratory Director
Printed Name: Richard Warila
Date: 1/28/2011

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The samples listed in Table I were submitted to New England Testing Laboratory on January 21, 2011. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. This report of analytical results pertains only to the sample(s) provide to us by the client which are indicated on the custody record. The case number for this sample submission is W0121-12.

Custody records are included in this report.

Site: 515 Somerville Avenue, Somerville, MA

TABLE I, Samples Submitted

Sample ID	Date Sampled	Matrix	Analysis Requested
AE-111A 0-3'	1/19/11	Soil	Table II, III
AE-111A 6-8'	1/19/11	Soil	Table II, III
AE-112 0-3'	1/19/11	Soil	Table II, III
AE-112 6-7'	1/19/11	Soil	Table II, III
AE-113 5-6'	1/19/11	Soil	Table II
AE-114 0-3'	1/19/11	Soil	Table II, III
AE-114 6-7.5'	1/19/11	Soil	Table II, III
AE-115 7-8'	1/19/11	Soil	Table II, III
AE-113 7-9'	1/19/11	Soil	Table III

TABLE II, Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
VPH	NA	*

TABLE III, Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
EPH	NA	**

These methods are documented in:

*Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MADEP

**Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MADEP

NETLAB New England Testing Laboratory, Inc.

CASE NARRATIVE:

Sample Receipt:

No trip blank was supplied. No field blank was supplied. (This does not qualify the analytical results but does prevent conducting these SW-846 {Chapter 1, Section 3.4} QA Audits).

The samples were all appropriately cooled and preserved upon receipt.

The samples were received in the appropriate containers.

The chain of custody was adequately completed and corresponded to the samples submitted.

EPH:

All samples were extracted and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria

VPH:

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

RESULTS: EXTRACTABLE PETROLEUM HYDROCARBONS

Results for EPH analysis are presented in the following section. Each page is electronically signed.

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A __pH<2 __pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-111A 0-3'
Method for Target Analytes:		Lab ID		W0121-12
EPH Surrogate Standards		Date Collected		1/19/11
Aliphatic: Chlorooctadecane		Date Received		1/21/11
Aromatic: o-Terphenyl		Date Extracted		1/27/11
EPH Fractionation Surrogates		Date Analyzed		1/27/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		10.3
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		11.1	mg/Kg	<11.1
Diesel PAH Analytes	Naphthalene	0.28	mg/Kg	<0.28
	2-Methylnaphthalene	0.28	mg/Kg	<0.28
	Phenanthrene	0.28	mg/Kg	<0.28
	Acenaphthylene	0.28	mg/Kg	<0.28
Other Target PAH Analytes	Acenaphthene	0 28	mg/Kg	<0.28
	Fluorene	0.28	mg/Kg	<0.28
	Anthracene	0.28	mg/Kg	<0.28
	Fluoranthene	0.28	mg/Kg	<0.28
	Pyrene	0.28	mg/Kg	<0.28
	Benzo(a)anthracene	0.28	mg/Kg	<0 28
	Chrysene	0.28	mg/Kg	<0.28
	Benzo(b)fluoranthene	0.28	mg/Kg	<0 28
	Benzo(k)fluoranthene	0.28	mg/Kg	<0.28
	Benzo(a)pyrene	0.28	mg/Kg	<0.28
	Indeno(1,2,3-cd)pyrene	0.28	mg/Kg	<0.28
	Dibenzo(a,h)anthracene	0.28	mg/Kg	<0.28
	Benzo(g,h,i)perylene	0 28	mg/Kg	<0.28
C9-C18 Aliphatic Hydrocarbons[1]		11.1	mg/Kg	<11.1
C19-C36 Aliphatic Hydrocarbons[1]		11 1	mg/Kg	<11.1
C11-C22 Aromatic Hydrocarbons[1,2]		11 1	mg/Kg	<11 1
Aliphatic Surrogate % Recovery				47
Aromatic Surrogate % Recovery				84
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				93
Fractionation Surrogate % Recovery				84
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached

Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached

Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 1/28/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A __pH<2 __pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-111A 6-8'
Method for Target Analytes:		Lab ID		W0121-12
EPH Surrogate Standards		Date Collected		1/19/11
Aliphatic: Chlorooctadecane		Date Received		1/21/11
Aromatic: o-Terphenyl		Date Extracted		1/27/11
EPH Fractionation Surrogates		Date Analyzed		1/27/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		18.3
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		12.0	mg/Kg	<12.0
Diesel PAH Analytes	Naphthalene	0.30	mg/Kg	<0.30
	2-Methylnaphthalene	0.30	mg/Kg	<0.30
	Phenanthrene	0.30	mg/Kg	<0.30
	Acenaphthylene	0.30	mg/Kg	<0.30
Other Target PAH Analytes	Acenaphthene	0.30	mg/Kg	<0.30
	Fluorene	0.30	mg/Kg	<0.30
	Anthracene	0.30	mg/Kg	<0.30
	Fluoranthene	0.30	mg/Kg	<0.30
	Pyrene	0.30	mg/Kg	<0.30
	Benzo(a)anthracene	0.30	mg/Kg	<0.30
	Chrysene	0.30	mg/Kg	<0.30
	Benzo(b)fluoranthene	0.30	mg/Kg	<0.30
	Benzo(k)fluoranthene	0.30	mg/Kg	<0.30
	Benzo(a)pyrene	0.30	mg/Kg	<0.30
	Indeno(1,2,3-cd)pyrene	0 30	mg/Kg	<0 30
	Dibenzo(a,h)anthracene	0.30	mg/Kg	<0 30
	Benzo(g,h,i)perylene	0.30	mg/Kg	<0 30
C9-C18 Aliphatic Hydrocarbons[1]		12.0	mg/Kg	<12.0
C19-C36 Aliphatic Hydrocarbons[1]		12.0	mg/Kg	<12 0
C11-C22 Aromatic Hydrocarbons[1,2]		12 0	mg/Kg	<12 0
Aliphatic Surrogate % Recovery				46
Aromatic Surrogate % Recovery				76
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				81
Fractionation Surrogate % Recovery				70
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached

Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached

Were any significant modifications made to the EPH method, as specified in Section 11 3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION Laboratory Director

PRINTED NAME: Richard Warila DATE: 1/28/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking
Aqueous Preservatives	X N/A _pH<2 _pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-112 0-3'
Method for Target Analytes		Lab ID		W0121-12
EPH Surrogate Standards		Date Collected		1/19/11
Aliphatic Chlorooctadecane		Date Received		1/21/11
Aromatic o-Terphenyl		Date Extracted		1/27/11
EPH Fractionation Surrogates		Date Analyzed		1/27/11
2-Fluorohiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		13.6
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		11.5	mg/Kg	20 2
Diesel PAH Analytes	Naphthalene	0 29	mg/Kg	<0.29
	2-Methylnaphthalene	0.29	mg/Kg	<0.29
	Phenanthrene	0.29	mg/Kg	<0.29
	Acenaphthylene	0.29	mg/Kg	<0.29
Other Target PAH Analytes	Acenaphthene	0.29	mg/Kg	<0.29
	Fluorene	0 29	mg/Kg	<0.29
	Anthracene	0.29	mg/Kg	<0.29
	Fluoranthene	0 29	mg/Kg	0.32
	Pyrene	0 29	mg/Kg	0.32
	Benzo(a)anthracene	0.29	mg/Kg	<0.29
	Chrysene	0.29	mg/Kg	<0.29
	Benzo(b)fluoranthene	0.29	mg/Kg	<0.29
	Benzo(k)fluoranthene	0.29	mg/Kg	<0.29
	Benzo(a)pyrene	0.29	mg/Kg	<0.29
	Indeno(1,2,3-cd)pyrene	0.29	mg/Kg	<0.29
	Dibenzo(a,b)antbracene	0.29	mg/Kg	<0.29
	Benzo(g,b,i)perylene	0.29	mg/Kg	<0.29
C9-C18 Aliphatic Hydrocarbons[1]		11.5	mg/Kg	<11.5
C19-C36 Aliphatic Hydrocarbons[1]		11 5	mg/Kg	40.8
C11-C22 Aromatic Hydrocarbons[1,2]		11 5	mg/Kg	19.6
Aliphatic Surrogate % Recovery				50
Aromatic Surrogate % Recovery				94
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				100
Fractionation Surrogate % Recovery				89
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 1/28/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-112 6-7'
Method for Target Analytes:		Lab ID		W0121-12
EPH Surrogate Standards		Date Collected		1/19/11
Aliphatic: Chlorooctadecane		Date Received		1/21/11
Aromatic: o-Terphenyl		Date Extracted		1/27/11
EPH Fractionation Surrogates		Date Analyzed		1/27/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bmmonaphthalene		% Moisture (soil)		5.3
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		10.5	mg/Kg	<10.5
Diesel PAH Analytes	Naphthalene	0.26	mg/Kg	<0 26
	2-Methylnaphthalene	0.26	mg/Kg	<0.26
	Phenanthrene	0.26	mg/Kg	<0.26
	Acenaphthylene	0.26	mg/Kg	<0.26
Other Target PAH Analytes	Acenaphthene	0.26	mg/Kg	<0 26
	Fluorene	0.26	mg/Kg	<0.26
	Anthracene	0.26	mg/Kg	<0.26
	Fluoranthene	0.26	mg/Kg	<0.26
	Pyrene	0.26	mg/Kg	<0.26
	Benzo(a)anthracene	0.26	mg/Kg	<0.26
	Chrysene	0.26	mg/Kg	<0.26
	Benzo(b)fluoranthene	0.26	mg/Kg	<0.26
	Benzo(k)fluoranthene	0.26	mg/Kg	<0.26
	Benzo(a)pyrene	0.26	mg/Kg	<0.26
	Indeno(1,2,3-cd)pyrene	0.26	mg/Kg	<0.26
	Dibenzo(a,h)anthracene	0.26	mg/Kg	<0.26
	Benzo(g,h,i)perylene	0.26	mg/Kg	<0.26
C9-C18 Aliphatic Hydrocarbons[1]		10.5	mg/Kg	26.3
C19-C36 Aliphatic Hydrocarbons[1]		10.5	mg/Kg	15.2
C11-C22 Aromatic Hydrocarbons[1,2]		10.5	mg/Kg	<10.5
Aliphatic Surrogate % Recovery				48
Aromatic Surrogate % Recovery				69
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				77
Fractionation Surrogate % Recovery				65
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAB Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 1/28/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A _pH<2 _pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges MADEP EPH 98-1		Client ID		AE-114 0-3'
Method for Target Analytes:		Lab ID		W0121-12
EPH Surrogate Standards		Date Collected		1/19/11
Aliphatic Chlorooctadecane		Date Received		1/21/11
Aromatic: o-Terphenyl		Date Extracted		1/27/11
EPH Fractionation Surrogates		Date Analyzed		1/27/11
2-Fluombiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		13.0
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		11.3	mg/Kg	44 8
Diesel PAH Analytes	Naphthalene	0.28	mg/Kg	<0.28
	2-Methylnaphthalene	0.28	mg/Kg	<0.28
	Phenanthrene	0.28	mg/Kg	<0.28
	Acenaphthylene	0.28	mg/Kg	<0.28
Other Target PAH Analytes	Acenaphthene	0.28	mg/Kg	<0.28
	Fluorene	0.28	mg/Kg	<0.28
	Anthracene	0.28	mg/Kg	<0.28
	Fluoranthene	0 28	mg/Kg	0.34
	Pyrene	0 28	mg/Kg	0.34
	Benzo(a)anthracene	0.28	mg/Kg	<0 28
	Chrysene	0.28	mg/Kg	<0.28
	Benzo(b)fluoranthene	0.28	mg/Kg	<0.28
	Benzo(k)fluoranthene	0 28	mg/Kg	<0.28
	Benzo(a)pyrene	0 28	mg/Kg	<0.28
	Indeno(1,2,3-cd)pyrene	0.28	mg/Kg	<0.28
	Dibenzo(a,b)anthracene	0.28	mg/Kg	<0.28
	Benzo(g,h,i)perylene	0 28	mg/Kg	<0 28
C9-C18 Aliphatic Hydrocarbons[1]		11.3	mg/Kg	<11 3
C19-C36 Aliphatic Hydrocarbons[1]		11 3	mg/Kg	26.9
C11-C22 Aromatic Hydrocarbons[1,2]		11 3	mg/Kg	44 1
Aliphatic Surrogate % Recovery				41
Aromatic Surrogate % Recovery				89
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				105
Fractionation Surrogate % Recovery				100
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 1/28/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A _pH<2 _pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-114 6-7.5'
Method for Target Analytes:		Lab ID		W0121-12
EPH Surrogate Standards		Date Collected		1/19/11
Aliphatic: Chlorooctadecane		Date Received		1/21/11
Aromatic: o-Terphenyl		Date Extracted		1/27/11
EPH Fractionation Surrogates		Date Analyzed		1/27/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bmmonaphthalene		% Moisture (soil)		15.2
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		11.7	mg/Kg	<11.7
Diesel PAH Analytes	Naphthalene	0.29	mg/Kg	<0.29
	2-Methylnaphthalene	0.29	mg/Kg	<0.29
	Phenanthrene	0.29	mg/Kg	<0.29
	Acenaphthylene	0.29	mg/Kg	<0.29
Other Target PAH Analytes	Acenaphthene	0.29	mg/Kg	<0 29
	Fluorene	0.29	mg/Kg	<0 29
	Anthracene	0 29	mg/Kg	<0.29
	Fluoranthene	0 29	mg/Kg	<0.29
	Pyrene	0 29	mg/Kg	<0.29
	Benzo(a)anthracene	0 29	mg/Kg	<0.29
	Chrysene	0.29	mg/Kg	<0.29
	Benzo(b)fluoranthene	0 29	mg/Kg	<0 29
	Benzo(k)fluoranthene	0.29	mg/Kg	<0.29
	Benzo(a)pyrene	0 29	mg/Kg	<0 29
	Indeno(1,2,3-cd)pyrene	0 29	mg/Kg	<0.29
	Dibenzo(a,h)anthracene	0.29	mg/Kg	<0 29
	Benzo(g,h,i)perylene	0.29	mg/Kg	<0.29
C9-C18 Aliphatic Hydrocarbons[1]		11 7	mg/Kg	<11.7
C19-C36 Aliphatic Hydrocarbons[1]		11 7	mg/Kg	<11 7
C11-C22 Ammatic Hydrocarbons[1,2]		11 7	mg/Kg	<11 7
Aliphatic Surrogate % Recovery				47
Aromatic Surrogate % Recovery				86
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				90
Fractionation Surrogate % Recovery				76
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 1/28/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory _ Broken _ Leaking:
Aqueous Preservatives	X N/A _ pH<2 _ pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE-115 7-8'
Method for Target Analytes:	Lab ID	W0121-12
EPH Surrogate Standards	Date Collected	1/19/11
Aliphatic: Chlorooctadecane	Date Received	1/21/11
Aromatic: o-Terphenyl	Date Extracted	1/27/11
EPH Fractionation Surrogates	Date Analyzed	1/27/11
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	17.6

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		12.1	mg/Kg	46.5
Diesel PAH Analytes	Naphthalene	0.30	mg/Kg	0.50
	2-Methylnaphthalene	0.30	mg/Kg	<0.30
	Phenanthrene	0.30	mg/Kg	<0.30
	Acenaphthylene	0.30	mg/Kg	<0.30
Other Target PAH Analytes	Acenaphthene	0 30	mg/Kg	<0.30
	Fluorene	0.30	mg/Kg	<0.30
	Anthracene	0.30	mg/Kg	<0.30
	Fluoranthene	0.30	mg/Kg	<0.30
	Pyrene	0.30	mg/Kg	<0.30
	Benzo(a)anthracene	0.30	mg/Kg	0.37
	Chrysene	0.30	mg/Kg	0.37
	Benzo(b)fluoranthene	0.30	mg/Kg	<0.30
	Benzo(k)fluoranthene	0.30	mg/Kg	<0.30
	Benzo(a)pyrene	0.30	mg/Kg	<0.30
	Indeno(1,2,3-cd)pyrene	0.30	mg/Kg	<0.30
	Dibenzo(a,h)anthracene	0.30	mg/Kg	<0.30
	Benzo(g,h,i)perylene	0.30	mg/Kg	<0.30
C9-C18 Aliphatic Hydrocarbons[1]		12.1	mg/Kg	99.3
C19-C36 Aliphatic Hydrocarbons[1]		12.1	mg/Kg	70.3
C11-C22 Aromatic Hydrocarbons[1,2]		12.1	mg/Kg	45.3
Aliphatic Surrogate % Recovery				45
Aromatic Surrogate % Recovery				104
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				112
Fractionation Surrogate % Recovery				99
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 1/28/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory _ Broken _ Leaking:
Aqueous Preservatives	X N/A _ pH<2 _ pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE-113 7-9'
Method for Target Analytes:	Lab ID	W0121-12
EPH Surrogate Standards	Date Collected	1/19/11
Aliphatic: Chlorooctadecane	Date Received	1/21/11
Aromatic: o-Terphenyl	Date Extracted	1/27/11
EPH Fractionation Surrogates	Date Analyzed	1/27/11
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	19.2

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		12.1	mg/Kg	19.9
Diesel PAH Analytes	Naphthalene	0.30	mg/Kg	<0.30
	2-Methylnaphthalene	0.30	mg/Kg	<0.30
	Phenanthrene	0.30	mg/Kg	0.47
	Acenaphthylene	0.30	mg/Kg	<0.30
Other Target PAH Analytes	Acenaphthene	0.30	mg/Kg	<0.30
	Fluorene	0.30	mg/Kg	<0.30
	Anthracene	0.30	mg/Kg	<0.30
	Fluoranthene	0.30	mg/Kg	0.55
	Pyrene	0.30	mg/Kg	0.48
	Benzo(a)anthracene	0.30	mg/Kg	<0.30
	Chrysene	0.30	mg/Kg	<0.30
	Benzo(b)fluoranthene	0.30	mg/Kg	<0.30
	Benzo(k)fluoranthene	0.30	mg/Kg	<0.30
	Benzo(a)pyrene	0.30	mg/Kg	<0.30
	Indeno(1,2,3-cd)pyrene	0.30	mg/Kg	<0.30
	Dibenzo(a,h)anthracene	0.30	mg/Kg	<0.30
	Benzo(g,h,i)perylene	0.30	mg/Kg	<0.30
C9-C18 Aliphatic Hydrocarbons[1]		12.1	mg/Kg	48.4
C19-C36 Aliphatic Hydrocarbons[1]		12.1	mg/Kg	22.2
C11-C22 Aromatic Hydrocarbons[1,2]		12.1	mg/Kg	18 4
Aliphatic Surrogate % Recovery				43
Aromatic Surrogate % Recovery				87
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				100
Fractionation Surrogate % Recovery				90
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 1/28/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	Satisfactory _ Broken _ Leaking:
Aqueous Preservatives	X N/A _ pH<2 _ pH>2 Comment:
Temperature	Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	Method Blank
Method for Target Analytes:	Lab ID	W0121-12
EPH Surrogate Standards	Date Collected	NA
Aliphatic: Chlorooctadecane	Date Received	NA
Aromatic: o-Terphenyl	Date Extracted	1/27/11
EPH Fractionation Surrogates	Date Analyzed	1/27/11
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	NA

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		10.0	mg/Kg	<10.0
Diesel PAH Analytes	Naphthalene	0.25	mg/Kg	<0.25
	2-Methylnaphthalene	0.25	mg/Kg	<0.25
	Phenanthrene	0.25	mg/Kg	<0.25
	Acenaphthylene	0.25	mg/Kg	<0.25
Other Target PAH Analytes	Acenaphthene	0.25	mg/Kg	<0.25
	Fluorene	0.25	mg/Kg	<0.25
	Anthracene	0.25	mg/Kg	<0.25
	Fluoranthene	0.25	mg/Kg	<0.25
	Pyrene	0.25	mg/Kg	<0.25
	Benzo(a)anthracene	0.25	mg/Kg	<0.25
	Chrysene	0.25	mg/Kg	<0.25
	Benzo(b)fluoranthene	0.25	mg/Kg	<0.25
	Benzo(k)fluoranthene	0.25	mg/Kg	<0.25
	Benzo(a)pyrene	0.25	mg/Kg	<0.25
	Indeno(1,2,3-cd)pyrene	0.25	mg/Kg	<0.25
	Dibenzo(a,h)anthracene	0.25	mg/Kg	<0.25
	Benzo(g,h,i)perylene	0.25	mg/Kg	<0.25
C9-C18 Aliphatic Hydrocarbons[1]		10.0	mg/Kg	<10.0
C19-C36 Aliphatic Hydrocarbons[1]		10.0	mg/Kg	<10 0
C11-C22 Aromatic Hydrocarbons[1,2]		10 0	mg/Kg	<10 0
Aliphatic Surrogate % Recovery				42
Aromatic Surrogate % Recovery				83
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				90
Fractionation Surrogate % Recovery				71
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 1/28/2011

```
            Spike Recovery and RPD Summary Report - SDIL

Method        : C:\HPCHEM\1\METHODS\EPHALI1.M (Chemstation Integrator)
Title         :
Last Update   : Fri Jan 28 09:35:27 2011
Response via  : Initial Calibration

Non-Spiked Sample:  J012702.D

          Spike                                 Spike
          Sample                                Duplicate Sample
----------------------------------------------------------------------
File ID :  J012703.D                          | J012704.D
Sample  :  LES HX 1-27                        | LESD HX 1-27
Acq Time:  27 Jan 2011   5:25 pm              | 27 Jan 2011   5:53 pm
----------------------------------------------------------------------

Compound               Sample Spike Spike  Dup  Spike  Dup   RPD    QC Limits
                        Conc  Added  Res   Res  %Rec  %Rec       RPD  % Rec
----------------------------------------------------------------------
Nonane                | 0.0 |  40 |  12 |  13 |  31 |  32 |  4 | 25 | 30-140|
Decane                | 0.0 |  40 |  16 |  16 |  40 |  40 |  0 | 25 | 40-140|
Dodecane              | 0.0 |  40 |  17 |  18 |  43 |  44 |  2 | 25 | 40-140|
Tetradecane           | 0.0 |  40 |  20 |  21 |  49 |  51 |  5 | 25 | 40-140|
Hexadecane            | 0.0 |  40 |  23 |  22 |  56 |  56 |  0 | 25 | 40-140|
Octadecane            | 0.0 |  40 |  26 |  25 |  66 |  62 |  6 | 25 | 40-140|
Nonadecane            | 0.0 |  40 |  26 |  23 |  65 |  58 | 11 | 25 | 40-140|
Eicosane              | 0.0 |  40 |  28 |  26 |  71 |  65 |  8 | 25 | 40-140|
Docosane              | 0.0 |  40 |  28 |  26 |  71 |  65 |  9 | 25 | 40-140|
Tetracosane           | 0.0 |  40 |  27 |  26 |  69 |  64 |  7 | 25 | 40-140|
Hexacosane            | 0.0 |  40 |  27 |  25 |  68 |  63 |  8 | 25 | 40-140|
Octacosane            | 0.0 |  40 |  27 |  25 |  69 |  63 |  9 | 25 | 40-140|
Triacontane           | 0.0 |  40 |  27 |  25 |  67 |  62 |  8 | 25 | 40-140|
Hexatriacontane       | 0.0 |  40 |  24 |  23 |  60 |  57 |  4 | 25 | 40-140|
----------------------------------------------------------------------

  # - Fails Limit Check


            EPHALI1.M      Fri Jan 28 09:40:22 2011
          Spike Recovery and RPD Summary Report - SOIL

Method        : C:\HPCHEM\2\METHODS\ARO1-25.M (Chemstation Integrator)
Title         :
Last Update   : Thu Jan 27 11:19:21 2011
Response via  : Initial Calibration

Non-Spiked Sample:  F012702.D

          Spike                                  Spike
          Sample                                 Duplicate Sample
------------------------------------------------------------------------
File ID :  F012703.D                             | F012704.D
Sample  :  LES ME 1-27                           | LESD ME 1-27
Acq Time:  27 Jan 2011   5:43 pm                 | 27 Jan 20111   6:29 pm
------------------------------------------------------------------------

Compound               Sample Spike Spike  Dup  Spike  Dup   RPD    QC Limits
                        Conc  Added  Res   Res  %Rec  %Rec       RPD  % Rec
------------------------------------------------------------------------
Naphthalene           | 0.0 |  40 |  24 |  24 |  60 |  60 |  1 | 25 | 40-140|
2 methyl naphthalene| 0.0 |  40 |  23 |  23 |  56 |  58 |  2 | 25 | 40-140|
acenaphthylene        | 0.0 |  40 |  24 |  24 |  60 |  60 |  0 | 25 | 40-140|
Acenaphthene          | 0.0 |  40 |  25 |  27 |  63 |  68 |  7 | 25 | 40-140|
fluorene              | 0.0 |  40 |  27 |  27 |  68 |  67 |  0 | 25 | 40-140|
phenanthrene          | 0.0 |  40 |  36 |  34 |  89 |  84 |  6 | 25 | 40-140|
Anthracene            | 0.0 |  40 |  32 |  30 |  81 |  76 |  6 | 25 | 40-140|
Fluoranthene          | 0.0 |  40 |  40 |  36 |  99 |  91 |  8 | 25 | 40-140|
Pyrene                | 0.0 |  40 |  39 |  36 |  98 |  91 |  8 | 25 | 40-140|
Benzo(a)anthracene    | 0.0 |  40 |  40 |  37 |  99 |  92 |  7 | 25 | 40-140|
Chrysene              | 0.0 |  40 |  39 |  36 |  97 |  90 |  7 | 25 | 40-140|
Benzo(b)fluoranthene| 0.0 |  40 |  41 |  38 | 103 |  95 |  7 | 25 | 40-140|
Benzo(k)fluoranthene| 0.0 |  40 |  40 |  37 | 100 |  92 |  8 | 25 | 40-140|
Benzo(a)pyrene        | 0.0 |  40 |  36 |  33 |  90 |  83 |  7 | 25 | 40-140|
Indeno(123cd)pyrene   | 0.0 |  40 |  44 |  37 | 110 |  92 | 18 | 25 | 40-140|
Dibenzo(ah)anthracen| 0.0 |  40 |  38 |  34 |  95 |  85 | 11 | 25 | 40-140|
Benzo(ghi)perylene    | 0.0 |  40 |  41 |  38 | 102 |  95 |  8 | 25 | 40-140|
------------------------------------------------------------------------

  # - Fails Limit Check


          ARO1-25.M      Fri Jan 28 08:38:53 2011
```

RESULTS: VOLATILE PETROLEUM HYDROCARBONS

Results for VPH analysis are presented in the following section. Each page is electronically signed.

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		X Samples rec'd in Methanol: X covering soil _ not covering soil	X 1:1 +/- 25%
		X Samples received in air-tight container.	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges MADEP VPH 01/98		Client ID		AE-111A 0-3'
Method for Target Analytes:		Lab ID		W0121-12
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID 2,5- Dibromotoluene		Date Collected		1/19/11
		Date Received		1/21/11
		Date Analyzed		1/24/11
		Dilution Factor		1X
		% Moisture (soil)		10.3
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	2.6	mg/Kg	<2.6
Unadjusted C9-C12 Aliphatics[1]	N/A	2.6	mg/Kg	<2.6
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	0.30	mg/Kg	<0.30
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Naphthalene	N/A	0.50	mg/Kg	<0.50
Toluene	C5-C8	0.30	mg/Kg	<0.30
m- & p- Xylenes	C9-C12	0.50	mg/Kg	<0.50
o-Xylene	C9-C12	0.50	mg/Kg	<0.50
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	2.6	mg/Kg	<2.6
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	2.6	mg/Kg	<2.6
C9-C10 Aromatic Hydrocarbons[1]	N/A	2.6	mg/Kg	<2.6
PID Surrogate % Recovery				94
FID Surrogate % Recovery				84
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE ____________ POSITION Laboratory Director

PRINTED NAME Richard Warila DATE 1/28/2011

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		X Samples rec'd in Methanol: X covering soil _ not covering soil	X 1:1 +/- 25%
		X Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-111A 6-8'
Method for Target Analytes:		Lab ID		W0121-12
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene		Date Collected		1/19/11
		Date Received		1/21/11
		Date Analyzed		1/24/11
		Dilution Factor		1X
		% Moisture (soil)		18 3
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	2.9	mg/Kg	<2.9
Unadjusted C9-C12 Aliphatics[1]	N/A	2.9	mg/Kg	<2.9
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	0.30	mg/Kg	<0.30
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Naphthalene	N/A	0.50	mg/Kg	<0.50
Toluene	C5-C8	0.30	mg/Kg	<0 30
m- & p- Xylenes	C9-C12	0.50	mg/Kg	<0.50
o-Xylene	C9-C12	0.50	mg/Kg	<0 50
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	2.9	mg/Kg	<2.9
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	2.9	mg/Kg	<2.9
C9-C10 Aromatic Hydrocarbons[1]	N/A	2.9	mg/Kg	<2.9
PID Surrogate % Recovery				97
FID Surrogate % Recovery				88
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: ____________ POSITION Laboratory Director

PRINTED NAME: Richard Warila DATE: 1/28/2011

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		X Samples rec'd in Methanol: X covering soil _ not covering soil	X 1:1 +/- 25%
		X Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-112 0-3'
Method for Target Analytes:		Lab ID		W0121-12
VPH Surrogate Standards PID 2,5- Dibromotoluene FID 2,5- Dibromotoluene		Date Collected		1/19/11
		Date Received		1/21/11
		Date Analyzed		1/24/11
		Dilution Factor		1X
		% Moisture (soil)		13.6
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	2.8	mg/Kg	<2.8
Unadjusted C9-C12 Aliphatics[1]	N/A	2.8	mg/Kg	43.2
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	0.30	mg/Kg	<0.30
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Naphthalene	N/A	0.50	mg/Kg	<0.50
Toluene	C5-C8	0.30	mg/Kg	<0.30
m- & p- Xylenes	C9-C12	0.50	mg/Kg	<0.50
o-Xylene	C9-C12	0.50	mg/Kg	<0.50
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	2.8	mg/Kg	<2.8
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	2.8	mg/Kg	32.8
C9-C10 Aromatic Hydrocarbons[1]	N/A	2.8	mg/Kg	10.4
PID Surrogate % Recovery				92
FID Surrogate % Recovery				94
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 1/28/2011

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		X Samples rec'd in Methanol: X covering soil _ not covering soil	X 1:1 +/- 25%
		X Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-112 6-7'
Method for Target Analytes:		Lab ID		W0121-12
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene		Date Collected		1/19/11
		Date Received		1/21/11
		Date Analyzed		1/24/11
		Dilution Factor		1X, 10X
		% Moisture (soil)		5.3
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	2.6	mg/Kg	35.0
Unadjusted C9-C12 Aliphatics[1]	N/A	26	mg/Kg	3800
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	3.0	mg/Kg	11.9
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Naphthalene	N/A	0.50	mg/Kg	<0.50
Toluene	C5-C8	0.30	mg/Kg	<0.30
m- & p- Xylenes	C9-C12	0.50	mg/Kg	5.0
o-Xylene	C9-C12	0.50	mg/Kg	9.2
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	2.6	mg/Kg	35.0
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	26	mg/Kg	1874
C9-C10 Aromatic Hydrocarbons[1]	N/A	26	mg/Kg	1900
PID Surrogate % Recovery				92, 96
FID Surrogate % Recovery				95, 119
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 1/28/2011

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		X Samples rec'd in Methanol: X covering soil _ not covering soil	X 1:1 +/- 25%
		X Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-113 5-6'
Method for Target Analytes:		Lab ID		W0121-12
VPH Surrogate Standards PID. 2,5- Dibromotoluene FID· 2,5- Dibromotoluene		Date Collected		1/19/11
		Date Received		1/21/11
		Date Analyzed		1/24/11
		Dilution Factor		1X
		% Moisture (soil)		19.2
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	3.0	mg/Kg	<3.0
Unadjusted C9-C12 Aliphatics[1]	N/A	3.0	mg/Kg	78.0
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	0.30	mg/Kg	<0.30
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Naphthalene	N/A	0.60	mg/Kg	<0.60
Toluene	C5-C8	0.30	mg/Kg	<0.30
m- & p- Xylenes	C9-C12	0.60	mg/Kg	<0.60
o-Xylene	C9-C12	0.60	mg/Kg	<0.60
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	3.0	mg/Kg	<3.0
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	3.0	mg/Kg	60.4
C9-C10 Aromatic Hydrocarbons[1]	N/A	3.0	mg/Kg	17.6
PID Surrogate % Recovery				92
FID Surrogate % Recovery				96
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 1/28/2011

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		X Samples rec'd in Methanol: X covering soil _ not covering soil	X 1:1 +/- 25%
		X Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-114 0-3'
Method for Target Analytes:		Lab ID		W0121-12
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene		Date Collected		1/19/11
		Date Received		1/21/11
		Date Analyzed		1/24/11
		Dilution Factor		1X
		% Moisture (soil)		13.0
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	2.7	mg/Kg	<2.7
Unadjusted C9-C12 Aliphatics[1]	N/A	2.7	mg/Kg	<2.7
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	0.30	mg/Kg	<0.30
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Naphthalene	N/A	0.50	mg/Kg	<0.50
Toluene	C5-C8	0.30	mg/Kg	<0.30
m- & p- Xylenes	C9-C12	0.50	mg/Kg	<0.50
o-Xylene	C9-C12	0.50	mg/Kg	<0 50
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	2.7	mg/Kg	<2.7
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	2.7	mg/Kg	<2.7
C9-C10 Aromatic Hydrocarbons[1]	N/A	2.7	mg/Kg	<2.7
PID Surrogate % Recovery				93
FID Surrogate % Recovery				87
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 1/28/2011

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		X Samples rec'd in Methanol: X covering soil _ not covering soil	X 1:1 +/- 25%
		X Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98	Client ID	AE-114 6-7.5'
Method for Target Analytes	Lab ID	W0121-12
VPH Surrogate Standards	Date Collected	1/19/11
PID 2,5- Dibromotoluene	Date Received	1/21/11
FID 2,5- Dibromotoluene	Date Analyzed	1/24/11
	Dilution Factor	1X
	% Moisture (soil)	15.2

Range/Target Analyte	Elution Range	RL	Units	
Unadjusted C5-C8 Aliphatics[1]	N/A	2.9	mg/Kg	<2.9
Unadjusted C9-C12 Aliphatics[1]	N/A	2.9	mg/Kg	<2.9
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	0.30	mg/Kg	<0.30
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Naphthalene	N/A	0.60	mg/Kg	<0.60
Toluene	C5-C8	0.30	mg/Kg	<0.30
m- & p- Xylenes	C9-C12	0.60	mg/Kg	<0.60
o-Xylene	C9-C12	0.60	mg/Kg	<0.60
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	2.9	mg/Kg	<2.9
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	2.9	mg/Kg	<2.9
C9-C10 Aromatic Hydrocarbons[1]	N/A	2.9	mg/Kg	<2.9
PID Surrogate % Recovery				97
FID Surrogate % Recovery				86
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 1/28/2011

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		X Samples rec'd in Methanol: X covering soil _ not covering soil	X 1:1 +/- 25%
		X Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98	Client ID	AE-115 7-8'
Method for Target Analytes:	Lab ID	W0121-12
VPH Surrogate Standards	Date Collected	1/19/11
PID 2,5- Dibromotoluene	Date Received	1/21/11
FID 2,5- Dibromotoluene	Date Analyzed	1/24/11
	Dilution Factor	1X, 10X
	% Moisture (soil)	17.6

Range/Target Analyte	Elution Range	RL	Units	
Unadjusted C5-C8 Aliphatics[1]	N/A	3.0	mg/Kg	63.7
Unadjusted C9-C12 Aliphatics[1]	N/A	30	mg/Kg	4500
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	3.0	mg/Kg	24.2
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Naphthalene	N/A	0.50	mg/Kg	<0.50
Toluene	C5-C8	0.30	mg/Kg	<0.30
m- & p- Xylenes	C9-C12	0.50	mg/Kg	6.0
o-Xylene	C9-C12	0.50	mg/Kg	9.4
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	3.0	mg/Kg	63.7
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	30	mg/Kg	2060
C9-C10 Aromatic Hydrocarbons[1]	N/A	30	mg/Kg	2400
PID Surrogate % Recovery				99, 90
FID Surrogate % Recovery				105, 120
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 1/28/2011

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	_ Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment.	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	_ Received on Ice _ Received at 4° C _ Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98	Client ID	Method Blank
Method for Target Analytes	Lab ID	W0121-12
VPH Surrogate Standards	Date Collected	NA
PID 2,5- Dibromotoluene	Date Received	NA
FID 2,5- Dibromotoluene	Date Analyzed	1/24/11
	Dilution Factor	1X
	% Moisture (soil)	NA

Range/Target Analyte	Elution Range	RL	Units	
Unadjusted C5-C8 Aliphatics[1]	N/A	2.5	mg/Kg	<2.5
Unadjusted C9-C12 Aliphatics[1]	N/A	2.5	mg/Kg	<2.5
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	0.30	mg/Kg	<0.30
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Naphthalene	N/A	0.50	mg/Kg	<0.50
Toluene	C5-C8	0.30	mg/Kg	<0.30
m- & p- Xylenes	C9-C12	0.50	mg/Kg	<0.50
o-Xylene	C9-C12	0.50	mg/Kg	<0.50
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	2.5	mg/Kg	<2.5
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	2.5	mg/Kg	<2.5
C9-C10 Aromatic Hydrocarbons[1]	N/A	2.5	mg/Kg	<2.5
PID Surrogate % Recovery				104
FID Surrogate % Recovery				85
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE POSITION Laboratory Director

PRINTED NAME Richard Warila DATE 1/28/2011

```
            Spike Recovery and RPD Summary Report

Method       : C:\HPCHEM\1\METHODS\VPHQUANT.M (Chemstation Integrator)
Title        :
Last Update  : Wed Jan 19 08:29:42 2011
Response via : Initial Calibration

Non-Spiked Sample:  D012405.D

          Spike                                Spike
          Sample                               Duplicate Sample
-------------------------------------------------------------------
File ID :  D012402.D                         | D012403.D
Sample  :  LCS012411                         | LCSD012411
Acq Time:  24 Jan 2011   9:33 am             | 24 Jan 2011  10:14 am
-------------------------------------------------------------------

Compound              Sample Spike Spike  Dup  Spike  Dup  RPD   QC Limits
                       Conc  Added  Res   Res  %Rec  %Rec      RPD  % Rec
-------------------------------------------------------------------
Pentane               | 0.0 |  50 |  56 |  53 | 112 | 106 |  5 | 25 | 70-130|
2-Methyl pentane      | 0.0 |  50 |  52 |  49 | 103 |  98 |  5 | 25 | 70-130|
2,2,4-trimethylpenta| 0.0 |  50 |  52 |  50 | 103 | 101 |  2 | 25 | 70-130|
Nonane                | 0.0 |  50 |  45 |  40 |  89 |  81 | 10 | 25 | 70-130|
n-decane              | 0.0 |  50 |  48 |  42 |  96 |  85 | 13 | 25 | 70-130|
n-butylcyclohexane    | 0.0 |  50 |  45 |  42 |  90 |  84 |  7 | 25 | 70-130|
MTBE #2               | 0.0 |  50 |  53 |  53 | 106 | 107 |  1 | 25 | 70-130|
Benzene #2            | 0.0 |  50 |  59 |  58 | 118 | 116 |  1 | 25 | 70-130|
Toluene #2            | 0.0 |  50 |  42 |  41 |  83 |  83 |  1 | 25 | 70-130|
Ethylbenzene #2       | 0.0 |  50 |  47 |  46 |  94 |  91 |  2 | 25 | 70-130|
M&P Xylene #2         | 0.0 | 100 |  83 |  84 |  83 |  84 |  1 | 25 | 70-130|
O Xylene #2           | 0.0 |  50 |  45 |  46 |  90 |  92 |  2 | 25 | 70-130|
1,2,4-Trimethylbenze| 0.0 |  50 |  42 |  41 |  84 |  83 |  2 | 25 | 70-130|
Naphthlene            | 0.0 |  50 |  46 |  46 |  91 |  92 |  1 | 25 | 70-130|
-------------------------------------------------------------------

  # - Fails Limit Check


            VPHQUANT.M     Fri Jan 28 08:49:15 2011
```

W0121- 12

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue
North Providence, RI 02904
1-888-863-8522

CHAIN OF CUSTODY RECORD

PROJ NO: 3120
PROJECT NAME/LOCATION: 515 Somerville Ave, Somerville, MA
CLIENT: Action Environmental
REPORT TO: Robert Houghton / Calvin Carlson
INVOICE TO: Andrew Clemons

DATE	TIME	COMP	GRAB	SAMPLE I D	AQUEOUS	SOIL	OTHER	NO. OF CONTAINERS	PRESERVATIVE	VPH (MeOH)	EPH	REMARKS
1-19-11	12:00	X		AE-111A 0-3		X		2		X	X	
1-19-11	12:10	X		AE-111A 6-8'		X		2		X	X	
1-19-11	12:50	X		AE-112 0-3'		X		2		X	X	
1-19-11	1:00	X		AE-112 6-7'		X		2		X	X	
~~[illegible]~~	~~[illegible]~~	~~X~~		~~[illegible]~~		~~X~~		~~2~~		~~X~~	~~X~~	
1-19-11	1:40	X		AE-113 5-6'		X		1		X		
1-19-11	2:20	X		AE-114 0-3'		X		2		X	X	
1-19-11	2:30	X		AE-114 6-7.5		X		2		X	X	
~~[illegible]~~	~~[illegible]~~	~~X~~		~~[illegible]~~		~~X~~		~~2~~		~~X~~	~~X~~	
1-19-11	3:00	X		AE-115 7-8'		X		2		X	X	
1-19-11	1:50	X		AE-113 7-9'				1.			X	

Sampled by (Signature)	Date/Time	Received by (Signature)	Date/Time
	1/19/11 4:45		
Relinquished by (Signature): Rita Birsd	1/19/11 1315	Received by (Signature)	1/19/11 1315
Relinquished by (Signature)	1/21/11 1530	Received for Laboratory by (Signature)	1/21/11 15:30

Laboratory Remarks:
Temp received: 5°C
Cooled ☐

Special Instructions, List Specific Detection Limit Requirements:
S-1
MCP GW2-3

Turnaround (Business Days): 5 Bus Days

**Netlab Subcontracts the following tests: Radiologicals, Radon, Asbestos, UCMRs, Perchlorate, Bromate, Bromide, Sieve, Salmonella, Carbamates

---

NETLAB

REPORT OF ANALYTICAL RESULTS

NETLAB Case Number W0125-31

Prepared for:

Attn: Robert Houghton
Action Environmental, Inc.
184 Riverview Ave.
Waltham, MA 02453

Report Date: February 1, 2011

Lab # RI010

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue, North Providence, RI 02904
(401) 353-3420

Total # of Pages: 10

MassDEP Analytical Protocol Certification Form

Laboratory Name: New England Testing Laboratory			Project #: 3120		
Project Location: 515 Somerville Avenue, Somerville, MA			RTN:		
This Form provides certifications for the following data set: list Laboratory Sample ID Number(s): W0125-31					
Matrices: Groundwater/Surface Water x Soil/Sediment Drinking Water Air Other:					
CAM Protocol (check all that apply below):					
8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A x	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	X Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	X Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	X Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	X Yes No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	X Yes No
Responses to Questions G, H and I below are required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	X Yes No[1]
Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.		
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	X Yes No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	X Yes No[1]

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Position: Laboratory Director

Printed Name: Richard Warila Date: 2/1/2011

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The samples listed in Table I were submitted to New England Testing Laboratory on January 25, 2011. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. This report of analytical results pertains only to the sample(s) provide to us by the client which are indicated on the custody record. The case number for this sample submission is W0125-31.

Custody records are included in this report.

Site: 515 Somerville Avenue, Somerville, MA

TABLE I, Samples Submitted

Sample ID	Date Sampled	Matrix	Analysis Requested
Composite Sidewall CSW-1	1/25/11	Soil	Table II
Excav. Floor EF-2	1/25/11	Soil	Table II

TABLE II, Analysis and Methods

ANALYSIS	DETERMINATIVE METHOD
PCBs	8082

These methods are documented in:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, USEPA/OSW.

CASE NARRATIVE:

Sample Receipt:

No trip blank was supplied. No field blank was supplied. (This does not qualify the analytical results but does prevent conducting these SW-846 {Chapter 1, Section 3.4} QA Audits).

The samples were all appropriately cooled and preserved upon receipt.

The samples were received in the appropriate containers.

The chain of custody was adequately completed and corresponded to the samples submitted.

PCBs:

All samples were extracted and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

RESULTS: PCBs

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Organics Analysis Department certifies that the samples included in this section have been prepared and analyzed using the procedures cited and that the results have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

Sample: Composite Sidewall CSW-1		Analyst's Initials: NS
Case No.: W0125-31		
Date Collected: 1/25/11		
Sample Matrix: Soil		
Subject: PCBs	Date Extracted	Date Analyzed
Prep Method: EPA 3541	01/28/11	01/28/11
Analytical Method: EPA 8082		
Compound	Concentration ug/kg* (ppb)	Reporting Limit
Aroclor-1221	N.D.	100
Aroclor-1232	N.D.	100
Aroclor-1016/1242	N.D.	100
Aroclor-1248	N.D.	100
Aroclor-1254	N.D.	100
Aroclor-1260	N.D.	100
Aroclor-1262	N.D.	100
Aroclor-1268	N.D.	100
Surrogates:		
Compound	% Recovery	Limits
TCMX	53	39-120
DCBP	59	34-140

*Dry Weight Basis

Sample: Excav. Floor EF-2		Analyst's Initials: NS
Case No.: W0125-31		
Date Collected: 1/25/11		
Sample Matrix: Soil		
Subject: PCBs	Date Extracted	Date Analyzed
Prep Method: EPA 3541	01/28/11	01/28/11
Analytical Method: EPA 8082		
Compound	Concentration ug/kg* (ppb)	Reporting Limit
Aroclor-1221	N.D.	100
Aroclor-1232	N.D.	100
Aroclor-1016/1242	N.D.	100
Aroclor-1248	N.D.	100
Aroclor-1254	N.D.	100
Aroclor-1260	N.D.	100
Aroclor-1262	N.D.	100
Aroclor-1268	N.D.	100
Surrogates:		
Compound	% Recovery	Limits
TCMX	65	39-120
DCBP	65	34-140

*Dry Weight Basis

Sample: Method Blank		Analyst's Initials: NS
Case No.: W0125-31		
Date Collected: NA		
Sample Matrix: Soil		
Subject: PCBs	Date Extracted	Date Analyzed
Prep Method: EPA 3541	01/28/11	01/28/11
Analytical Method: EPA 8082		
Compound	Concentration ug/kg (ppb)	Reporting Limit
Aroclor-1221	N.D.	100
Aroclor-1232	N.D.	100
Aroclor-1016/1242	N.D.	100
Aroclor-1248	N.D.	100
Aroclor-1254	N.D.	100
Aroclor-1260	N.D.	100
Aroclor-1262	N.D.	100
Aroclor-1268	N.D.	100
Surrogates:		
Compound	% Recovery	Limits
TCMX	73	39-120
DCBP	86	34-140

PCB Laboratory Control Spike

Sample Matrix: Soil				
Subject: PCB	Date Extracted			Date Analyzed
Prep Method: EPA 3540C	1/28/11			1/28/11
Analytical Method: EPA 8082				
Compound	Amount Spiked mg/kg	Result mg/kg	Recovery %	Recovery Limits
Aroclor 1016	0.500	0.413	83	46-130
Aroclor 1260	0.500	0.4522	90	55-130
Surrogates:				
Compound	% Recovery	Limits		
TCMX	83	39-120		
DCBP	94	34-140		

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue
North Providence, RI 02904
1-888-863-8522

W0125-31

CHAIN OF CUSTODY RECORD

PROJ NO 3120
PROJECT NAME/LOCATION 515 SOMERVILLE AVE., SOMERVILLE, MA
CLIENT ACTION ENVIRONMENTAL BOSTON, 184 RIVERVIEW AVE, 1st FL, WALTHAM, MA 02453
REPORT TO ROBERT HOUGHTON
INVOICE TO ANDREW CLEMONS

DATE	TIME	COMP	GRAB	SAMPLE I.D.	AQUEOUS	SOIL	OTHER	NO OF CONTAINERS	PRESERVATIVE	TESTS: PCBs	REMARKS
1/24/11	1220	X		COMPOSITE SIDEWALLS - CSW-1		X		1	CHILL	X	RTN 3-28548
"	1245		X	EXCAV. FLOOR. EF-2		X		1	"	X	

Sampled by (Signature)	Date/Time	Received by (Signature)	Date/Time
	1/24/11 1410		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
	1/24/11 1415	Robert Lee	1/25/11 1415
Relinquished by (Signature)	Date/Time	Received for Laboratory by (Signature)	Date/Time
Robert Lee	1/25/11 1540		1/25/11 15:40

Laboratory Remarks
Temp received 4°C
Cooled ☐

Special Instructions. List Specific Detection Limit Requirements MCP S-1/GW-2/3

NORMAL
Turnaround (Business Days) 5-DAY

**Netlab Subcontracts the following tests: Radiologicals, Radon, Asbestos, UCMRs, Perchlorate, Bromate, Bromide, Sieve, Salmonella, Carbamates

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NETLAB

REPORT OF ANALYTICAL RESULTS

NETLAB Case Number W0204-23

Prepared for:

Attn: Robert Houghton
Action Environmental, Inc.
184 Riverview Ave.
Waltham, MA 02453

Report Date: February 10, 2011

Lab # R1010

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue, North Providence, RI 02904
(401) 353-3420

Total # of Pages: 28

MassDEP Analytical Protocol Certification Form

Laboratory Name New England Testing Laboratory — Project #:3120

Project Location 515 Somerville Avenue, Somerville, MA — RTN

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
W0204-23

Matrices x Groundwater/Surface Water Soil/Sediment Drinking Water Air Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A x	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B x	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

	Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status	
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	X Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	X Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	X Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	X Yes No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	X Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	X Yes No
	Responses to Questions G, H and I below are required for "Presumptive Certainty" status	
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	X Yes No[1]
	Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.	
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	X Yes No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	X Yes No[1]

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: — **Position:** Laboratory Director

Printed Name: Richard Warila — **Date:** 2/10/2011

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The samples listed in Table I were submitted to New England Testing Laboratory on February 4, 2011. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. This report of analytical results pertains only to the sample(s) provide to us by the client which are indicated on the custody record. The case number for this sample submission is W0204-23.

Custody records are included in this report.

Site: 515 Somerville Avenue, Somerville, MA

TABLE I, Samples Submitted

Sample ID	Date Sampled	Matrix	Analysis Requested
AE-101	2/4/11	Water	Table II
AE-102	2/4/11	Water	Table II
AE-103	2/4/11	Water	Table II
AE-104	2/4/11	Water	Table II
AE-106	2/4/11	Water	Table II
AE-107	2/4/11	Water	Table II
AE-108	2/4/11	Water	Table II
AE-109	2/4/11	Water	Table II

TABLE II, Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
VPH	NA	*
EPH	NA	**

These methods are documented in:

*Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MADEP

**Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MADEP

NETLAB New England Testing Laboratory, Inc.

CASE NARRATIVE:

Sample Receipt.

No trip blank was supplied. No field blank was supplied. (This does not qualify the analytical results but does prevent conducting these SW-846 {Chapter 1, Section 3.4} QA Audits).

The samples were all appropriately cooled and preserved upon receipt.

The samples were received in the appropriate containers.

The chain of custody was adequately completed and corresponded to the samples submitted

EPH

All samples were extracted and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria

VPH

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria

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RESULTS: EXTRACTABLE PETROLEUM HYDROCARBONS

Results for EPH analysis are presented in the following section. Each page is electronically signed.

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	_ N/A X pH<2 _ pH>2 Comment.
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE-101
Method for Target Analytes:	Lab ID	W0204-23
EPH Surrogate Standards	Date Collected	2/4/11
Aliphatic: Chlorooctadecane	Date Received	2/4/11
Aromatic: o-Terphenyl	Date Extracted	2/7/11
EPH Fractionation Surrogates	Date Analyzed	2/8/11
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	N/A

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	0.499
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	0.80
	Dibenzo(a,h)anthracene	0.5	ug/L	2.34
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				44
Aromatic Surrogate % Recovery				88
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				140
Fractionation Surrogate % Recovery				126
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/10/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	_ N/A X pH<2 _ pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE-102
Method for Target Analytes:	Lab ID	W0204-23
EPH Surrogate Standards	Date Collected	2/4/11
Aliphatic: Chlorooctadecane	Date Received	2/4/11
Aromatic: o-Terphenyl	Date Extracted	2/7/11
EPH Fractionation Surrogates	Date Analyzed	2/8/11
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	N/A

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				46
Aromatic Surrogate % Recovery				81
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				124
Fractionation Surrogate % Recovery				111
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/10/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	_ N/A X pH<2 _ pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE-103
Method for Target Analytes:	Lab ID	W0204-23
EPH Surrogate Standards	Date Collected	2/4/11
Aliphatic: Chlorooctadecane	Date Received	2/4/11
Aromatic: o-Terphenyl	Date Extracted	2/7/11
EPH Fractionation Surrogates	Date Analyzed	2/8/11
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	N/A

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				53
Aromatic Surrogate % Recovery				87
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				122
Fractionation Surrogate % Recovery				103
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/10/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	_ N/A X pH<2 _ pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE-104
Method for Target Analytes:	Lab ID	W0204-23
EPH Surrogate Standards	Date Collected	2/4/11
Aliphatic: Chlorooctadecane	Date Received	2/4/11
Aromatic: o-Terphenyl	Date Extracted	2/7/11
EPH Fractionation Surrogates	Date Analyzed	2/8/11
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	N/A

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				49
Aromatic Surrogate % Recovery				92
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				132
Fractionation Surrogate % Recovery				116
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/10/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH≤2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE-106
Method for Target Analytes:	Lab ID	W0204-23
EPH Surrogate Standards	Date Collected	2/4/11
Aliphatic: Chlorooctadecane	Date Received	2/4/11
Aromatic: o-Terphenyl	Date Extracted	2/7/11
EPH Fractionation Surrogates	Date Analyzed	2/8/11
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	N/A

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				48
Aromatic Surrogate % Recovery				90
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				138
Fractionation Surrogate % Recovery				122
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/10/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH≤2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE-107
Method for Target Analytes:	Lab ID	W0204-23
EPH Surrogate Standards	Date Collected	2/4/11
Aliphatic: Chlorooctadecane	Date Received	2/4/11
Aromatic: o-Terphenyl	Date Extracted	2/7/11
EPH Fractionation Surrogates	Date Analyzed	2/8/11
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	N/A

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	0.782
	Dibenzo(a,h)anthracene	0.5	ug/L	1.59
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				52
Aromatic Surrogate % Recovery				84
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				111
Fractionation Surrogate % Recovery				95
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/10/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH≤2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE-108
Method for Target Analytes:	Lab ID	W0204-23
EPH Surrogate Standards	Date Collected	2/4/11
Aliphatic: Chlorooctadecane	Date Received	2/4/11
Aromatic: o-Terphenyl	Date Extracted	2/7/11
EPH Fractionation Surrogates	Date Analyzed	2/8/11
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	N/A

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	0.676
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				48
Aromatic Surrogate % Recovery				78
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				115
Fractionation Surrogate % Recovery				102
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/10/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH≤2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE-109
Method for Target Analytes:	Lab ID	W0204-23
EPH Surrogate Standards	Date Collected	2/4/11
Aliphatic: Chlorooctadecane	Date Received	2/4/11
Aromatic: o-Terphenyl	Date Extracted	2/7/11
EPH Fractionation Surrogates	Date Analyzed	2/8/11
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	N/A

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				59
Aromatic Surrogate % Recovery				98
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				134
Fractionation Surrogate % Recovery				116
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/10/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	_ Satisfactory Broken Leaking:
Aqueous Preservatives	_ N/A _ pH<2 _ pH>2 Comment:
Temperature	_ Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		Method Blank
Method for Target Analytes:		Lab ID		W0204-23
EPH Surrogate Standards		Date Collected		NA
Aliphatic: Chlorooctadecane		Date Received		NA
Aromatic: o-Terphenyl		Date Extracted		2/7/11
EPH Fractionation Surrogates		Date Analyzed		2/8/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				51
Aromatic Surrogate % Recovery				77
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				99
Fractionation Surrogate % Recovery				84
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/10/2011

```
               Spike Recovery and RPD Summary Report - WATER

Method        : C:\HPCHEM\1\METHODS\EPHALI1.M (Chemstation Integrator)
Title         :
Last Update   : Fri Jan 28 09:35:27 2011
Response via  : Initial Calibration

Non-Spiked Sample:  J020803.D

          Spike                                 Spike
          Sample                                Duplicate Sample
---------------------------------------------------------------------
File ID :  J020804.D                           | J020805.D
Sample  :  LEW 2-7 HX                          | LEWD 2-7 HX
Acq Time:  8 Feb 2011  11:14 am                |  8 Feb 2011  11:43 am
---------------------------------------------------------------------

Compound                  Sample Spike Spike  Dup  Spike  Dup  RPD    QC Limits
                           Conc  Added  Res   Res  %Rec  %Rec       RPD  % Rec
---------------------------------------------------------------------
Nonane                   | 0.0 |  40 |  16 |  13 |  40 |  33 | 20 | 25 | 30-140|
Decane                   | 0.0 |  40 |  17 |  16 |  42 |  41 |  2 | 25 | 40-140|
Dodecane                 | 0.0 |  40 |  18 |  16 |  44 |  41 |  9 | 25 | 40-140|
Tetradecane              | 0.0 |  40 |  20 |  19 |  49 |  47 |  6 | 25 | 40-140|
Hexadecane               | 0.0 |  40 |  21 |  21 |  53 |  52 |  2 | 25 | 40-140|
Dctadecane               | 0.0 |  40 |  23 |  23 |  57 |  56 |  1 | 25 | 40-140|
Nonadecane               | 0.0 |  40 |  22 |  21 |  55 |  53 |  4 | 25 | 40-140|
Eicosane                 | 0.0 |  40 |  24 |  24 |  61 |  60 |  3 | 25 | 40-140|
Docosane                 | 0.0 |  40 |  24 |  23 |  60 |  59 |  3 | 25 | 40-140|
Tetracosane              | 0.0 |  40 |  24 |  23 |  59 |  57 |  4 | 25 | 40-140|
Hexacosane               | 0.0 |  40 |  23 |  22 |  58 |  55 |  5 | 25 | 40-140|
Dctacosane               | 0.0 |  40 |  24 |  22 |  59 |  55 |  8 | 25 | 40-140|
Triacontane              | 0.0 |  40 |  24 |  22 |  59 |  55 |  8 | 25 | 40-140|
Hexatriacontane          | 0.0 |  40 |  23 |  20 |  57 |  50 | 12 | 25 | 40-140|
---------------------------------------------------------------------

  # - Fails Limit Check


          EPHALI1.M      Wed Feb 09 09:24:11 2011
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               Spike Recovery and RPD Summary Report - WATER

Method        : C:\HPCHEM\2\METHODS\ARD1-25.M (Chemstation Integrator)
Title         :
Last Update   : Mon Feb 07 11:09:17 2011
Response via  : Initial Calibration

Non-Spiked Sample:  F020803.D

          Spike                                 Spike
          Sample                                Duplicate Sample
---------------------------------------------------------------------
File ID :  F020804.D                           | F020805.D
Sample  :  LEW ME 2-7                          | LEWD ME 2-7
Acq Time:  8 Feb 2011  12:19 pm                | 8 Feb 2011   1:05 pm
---------------------------------------------------------------------

Compound                  Sample Spike Spike  Dup  Spike  Dup  RPD    QC Limits
                           Conc  Added  Res   Res  %Rec  %Rec       RPD  % Rec
---------------------------------------------------------------------
Naphthalene             | 0.0 |  40 |  27 |  21 |  68 |  53 | 24 | 25 | 40-140|
2 methyl naphthalene    | 0.0 |  40 |  28 |  24 |  71 |  60 | 17 | 25 | 40-140|
acenaphthylene          | 0.0 |  40 |  33 |  27 |  81 |  67 | 20 | 25 | 40-140|
Acenaphthene            | 0.0 |  40 |  32 |  26 |  80 |  66 | 20 | 25 | 40-140|
fluorene                | 0.0 |  40 |  35 |  30 |  87 |  75 | 15 | 25 | 40-140|
phenanthrene            | 0.0 |  40 |  42 |  37 | 106 |  93 | 13 | 25 | 40-140|
Anthracene              | 0.0 |  40 |  38 |  33 |  94 |  83 | 13 | 25 | 40-140|
Fluoranthene            | 0.0 |  40 |  44 |  38 | 110 |  94 | 16 | 25 | 40-140|
Pyrene                  | 0.0 |  40 |  45 |  38 | 112 |  95 | 17 | 25 | 40-140|
Benzo(a)anthracene      | 0.0 |  40 |  48 |  40 | 119 | 101 | 17 | 25 | 40-140|
Chrysene                | 0.0 |  40 |  42 |  36 | 106 |  91 | 16 | 25 | 40-140|
Benzo(b)fluoranthene    | 0.0 |  40 |  50 |  41 | 126 | 103 | 20 | 25 | 40-140|
Benzo(k)fluoranthene    | 0.0 |  40 |  43 |  37 | 108 |  93 | 15 | 25 | 40-140|
Benzo(a)pyrene          | 0.0 |  40 |  43 |  36 | 108 |  89 | 19 | 25 | 40-140|
Indeno(123cd)pyrene     | 0.0 |  40 |  45 |  40 | 113 | 100 | 12 | 25 | 40-140|
Dibenzo(ah)anthracen    | 0.0 |  40 |  42 |  38 | 106 |  94 | 12 | 25 | 40-140|
Benzo(ghi)perylene      | 0.0 |  40 |  48 |  39 | 119 |  98 | 19 | 25 | 40-140|
---------------------------------------------------------------------

  # - Fails Limit Check


          AR01-25.M      Tue Feb 08 14:15:31 2011
```

RESULTS: VOLATILE PETROLEUM HYDROCARBONS

Results for VPH analysis are presented in the following section. Each page is electronically signed.

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	AE-101
Method for Target Analytes			Lab ID	W0204-23
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene			Date Collected	2/4/11
			Date Received	2/4/11
			Date Analyzed	2/8/11
			Dilution Factor	1X
			% Moisture (soil)	NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics^1	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics^1	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons^{1,2}	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons^{1,3}	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons^1	N/A	50	ug/L	<50
PID Surrogate % Recovery				100
FID Surrogate % Recovery				82
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/10/2011

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	AE-102
Method for Target Analytes:			Lab ID	W0204-23
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene			Date Collected	2/4/11
			Date Received	2/4/11
			Date Analyzed	2/8/11
			Dilution Factor	1X
			% Moisture (soil)	NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics^1	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics^1	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons^{1,2}	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons^{1,3}	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons^1	N/A	50	ug/L	<50
PID Surrogate % Recovery				99
FID Surrogate % Recovery				84
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/10/2011

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	AE-103
Method for Target Analytes			Lab ID	W0204-23
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene			Date Collected	2/4/11
			Date Received	2/4/11
			Date Analyzed	2/8/11
			Dilution Factor	1X
			% Moisture (soil)	NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics^1	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics^1	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons^{1,2}	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons^{1,3}	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons^1	N/A	50	ug/L	<50
PID Surrogate % Recovery				102
FID Surrogate % Recovery				82
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/10/2011

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	AE-104
Method for Target Analytes:			Lab ID	W0204-23
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene			Date Collected	2/4/11
			Date Received	2/4/11
			Date Analyzed	2/8/11
			Dilution Factor	1X
			% Moisture (soil)	NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics^1	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics^1	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons^{1,2}	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons^{1,3}	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons^1	N/A	50	ug/L	<50
PID Surrogate % Recovery				100
FID Surrogate % Recovery				85
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

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SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/10/2011

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-106
Method for Target Analytes:		Lab ID		W0204-23
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene		Date Collected		2/4/11
		Date Received		2/4/11
		Date Analyzed		2/8/11
		Dilution Factor		1X
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				97
FID Surrogate % Recovery				81
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/10/2011

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-107
Method for Target Analytes:		Lab ID		W0204-23
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene		Date Collected		2/4/11
		Date Received		2/4/11
		Date Analyzed		2/8/11
		Dilution Factor		1X
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				99
FID Surrogate % Recovery				81
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

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SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/10/2011

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-108
Method for Target Analytes:		Lab ID		W0204-23
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene		Date Collected		2/4/11
		Date Received		2/4/11
		Date Analyzed		2/8/11
		Dilution Factor		1X
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				97
FID Surrogate % Recovery				82
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

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SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/10/2011

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-109
Method for Target Analytes:		Lab ID		W0204-23
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene		Date Collected		2/4/11
		Date Received		2/4/11
		Date Analyzed		2/8/11
		Dilution Factor		1X
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	880
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	620
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	260
PID Surrogate % Recovery				95
FID Surrogate % Recovery				84
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

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SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/10/2011

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	_ Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil _ 1:1 +/- 25% _ Other:
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	
		_ Samples received in air-tight container:	
Temperature	_ Received on Ice _ Received at 4° C _ Other:		

VPH ANALYTICAL RESULTS

			Client ID	Method Blank
Method for Ranges: MADEP VPH 01/98			Lab ID	W0204-23
Method for Target Analytes			Date Collected	NA
VPH Surrogate Standards PID 2,5- Dibromotoluene FID 2,5- Dibromotoluene			Date Received	NA
			Date Analyzed	2/8/11
			Dilution Factor	1X
			% Moisture (soil)	NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5	ug/L	<5
Ethylbenzene	C9-C12	5	ug/L	<5
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5	ug/L	<5
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				103
FID Surrogate % Recovery				85
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

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Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

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SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/10/2011

```
                    Spike Recovery and RPD Summary Report - WATER

Method       : C:\HPCHEM\1\METHODS\VPHQUANT.M (Chemstation Integrator)
Title        :
Last Update  : Wed Jan 19 08:29:42 2011
Response via : Initial Calibration

Non-Spiked Sample:  D020805.D

              Spike                                     Spike
              Sample                                    Duplicate Sample
--------------------------------------------------------------------------
File ID :  D020802.D                               | D020803.D
Sample  :  LCS020811                               | LCSD020811
Acq Time:   8 Feb 2011   8:56 am                   |  8 Feb 2011   9:37 am
--------------------------------------------------------------------------

Compound               Sample Spike Spike  Dup  Spike  Dup  RPD    QC Limits
                        Conc  Added  Res   Res  %Rec  %Rec       RPD  % Rec
--------------------------------------------------------------------------
Pentane               | 0.0 |  50 |  55 |  53 | 109 | 107 |  2 | 25 | 70-130|
2-Methyl pentane      | 0.0 |  50 |  49 |  48 |  97 |  95 |  2 | 25 | 70-130|
2,2,4-trimethylpenta| 0.0 |  50 |  52 |  50 | 104 | 100 |  4 | 25 | 70-130|
Nonane                | 0.0 |  50 |  43 |  41 |  86 |  82 |  4 | 25 | 70-130|
n-decane              | 0.0 |  50 |  43 |  41 |  86 |  81 |  6 | 25 | 70-130|
n-butylcyclohexane    | 0.0 |  50 |  49 |  43 |  97 |  86 | 12 | 25 | 70-130|
MTBE #2               | 0.0 |  50 |  58 |  57 | 117 | 113 |  3 | 25 | 70-130|
Benzene #2            | 0.0 |  50 |  59 |  59 | 117 | 118 |  0 | 25 | 70-130|
Toluene #2            | 0.0 |  50 |  40 |  40 |  80 |  80 |  0 | 25 | 70-130|
Ethylbenzene #2       | 0.0 |  50 |  44 |  44 |  88 |  87 |  1 | 25 | 70-130|
M&P Xylene #2         | 0.0 | 100 |  83 |  83 |  83 |  83 |  0 | 25 | 70-130|
O Xylene #2           | 0.0 |  50 |  45 |  45 |  90 |  90 |  1 | 25 | 70-130|
1,2,4-Trimethylbenze| 0.0 |  50 |  43 |  42 |  85 |  84 |  1 | 25 | 70-130|
Naphthlene            | 0.0 |  50 |  43 |  43 |  87 |  85 |  2 | 25 | 70-130|
--------------------------------------------------------------------------

  # - Fails Limit Check


            VPHQUANT.M     Thu Feb 10 09:40:55 2011
```

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue
North Providence, RI 02904
1-888-863-8522

CHAIN OF CUSTODY RECORD

W0204-23

PROJ NO: 3120
PROJECT NAME/LOCATION: 515 Somerville Ave, Som'l, MA
CLIENT: Action Environmental
REPORT TO: Robert Houghton
INVOICE TO: Andrew Clemens

DATE	TIME	COMP	GRAB	SAMPLE I.D.	AQUEOUS	SOIL	OTHER	NO OF CONTAINERS	PRESERVATIVE	VPH	EPH	REMARKS
2/4/11	11:40		X	AE-101	X			3	HCl	X	X	
2/4/11	12:[illegible]		X	AE-102	X			3		X	X	
2/4/11	12:30		X	AE-103	X			3		X	X	
2/4/11	8:40		X	AE-104	X			3		X	X	
2/4/11	9:20		X	AE-106	X			3		X	X	
2/4/11	9:45		X	AE-107	X			3		X	X	
2/4/11	10:10		X	AE-108	X			3		X	X	
2/4/11	10:45		X	AE-109	X			3	↓	X	X	

Sampled by: (Signature)	Date/Time 2/4/11 2:00	Received by: (Signature)	Date/Time	Laboratory Remarks. Temp. received: 4° Cooled R
Relinquished by: (Signature)	Date/Time 2/4/11 2:50	Received by: (Signature) Robert Lee	Date/Time 2/4/11 2:50	
Relinquished by: (Signature) Robert Lee	Date/Time 2/4/11 4:35	Received for Laboratory by: (Signature)	Date/Time 2/4/11 16:35	

Special Instructions. List Specific Detection Limit Requirements: MCP GW2-3

Turnaround (Business Days): 5 bus Days

**Netlab Subcontracts the following tests: Radiologicals, Radon, Asbestos, UCMRs, Perchlorate, Bromate, Bromide, Sieve, Salmonella, Carbamates

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NETLAB

REPORT OF ANALYTICAL RESULTS

NETLAB Case Number W0211-21

Prepared for:

Attn: Robert Houghton/Glenn Carlson
Action Environmental, Inc.
184 Riverview Ave.
Waltham, MA 02453

Report Date: February 18, 2011

Lab # RI010

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue, North Providence, RI 02904
(401) 353-3420

MassDEP Analytical Protocol Certification Form

Laboratory Name: New England Testing Laboratory, Inc. Project #: 3120

Project Location: 515 Somerville Avenue, Somerville, MA RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s): W0211-21

Matrices: Groundwater/Surface Water x Soil/Sediment Drinking Water Air Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A x	7470/7471 Hg CAM III B x	MassDEP VPH CAM IV A x	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B x	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A x	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	X Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	X Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	X Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	X Yes No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	X Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	X Yes No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	X Yes No[1]

Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	X Yes No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	X Yes No[1]

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature:

Position: Laboratory Director

Printed Name: Richard Warila

Date: 2/22/2011

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The samples listed in Table I were submitted to New England Testing Laboratory on February 11, 2011. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. This report of analytical results pertains only to the sample(s) provide to us by the client which are indicated on the custody record. The case number for this sample submission is W0211-21.

Custody records are included in this report.

Site: 515 Somerville Avenue, Somerville, MA

TABLE I, Samples Submitted

Sample ID	Date Sampled	Matrix	Analysis Requested
AE-218 14.5	2/10/11	Soil	Table II, III
AE-219 10	2/10/11	Soil	Table II
AE-219 13/14	2/10/11	Soil	Table II, III
AE-220 12/14	2/10/11	Soil	Table II, III
AE-221 0/1	2/10/11	Soil	Table II
AE-221 6/7	2/10/11	Soil	VPH Only
AE-222 6/7	2/10/11	Soil	Table II
AE-223 6/7	2/10/11	Soil	Table II
AE-223 13/14	2/10/11	Soil	Table II
AE-224 6/7	2/10/11	Soil	Table II
AE-224 14	2/10/11	Soil	Table II
AE-225	2/10/11	Soil	Table IV
AE-226 12.5	2/10/11	Soil	Table II, III

TABLE II, Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
VPH	NA	*
EPH	NA	**

TABLE III, Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
Volatile Organic Compounds	5035	8260B

TABLE IV, Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
EPH	NA	**
Total Metals		
Arsenic	3050B	6010B
Barium	3050B	6010B
Cadmium	3050B	6010B
Chromium	3050B	6010B
Lead	3050B	6010B
Mercury	NA	7471A
Selenium	3050B	6010B
Silver	3050B	6010B

These methods are documented in:

*Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MADEP.

**Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MADEP.

CASE NARRATIVE:

Sample Receipt:

No trip blank was supplied. No field blank was supplied. (This does not qualify the analytical results but does prevent conducting these SW-846 {Chapter 1, Section 3.4} QA Audits).

The samples were all appropriately cooled and preserved upon receipt.

The samples were received in the appropriate containers.

The chain of custody was adequately completed and corresponded to the samples submitted.

EPH:

All samples were extracted and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria

Metals:

All analyses were performed according to NETLAB's documented Standard Operating Procedures, within all required holding times, and with appropriate quality control measures. All QC was within laboratory established acceptance criteria. The samples were received, processed, and reported with no anomalies.

Volatile Organic Compounds:

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

VPH:

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

RESULTS: EXTRACTABLE PETROLEUM HYDROCARBONS

Results for EPH analysis are presented in the following section. Each page is electronically signed.

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-218 14 5
Method for Target Analytes:		Lab ID		W0211-21
EPH Surrogate Standards		Date Collected		2/10/11
Aliphatic: Chlorooctadecane		Date Received		2/11/11
Aromatic: o-Terphenyl		Date Extracted		2/16/11
EPH Fractionation Surrogates		Date Analyzed		2/17/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		19
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		11.8	mg/Kg	16.6
Diesel PAH Analytes	Naphthalene	0.30	mg/Kg	0.51
	2-Methylnaphthalene	0.30	mg/Kg	<0.30
	Phenanthrene	0.30	mg/Kg	<0.30
	Acenaphthylene	0.30	mg/Kg	<0.30
Other Target PAH Analytes	Acenaphthene	0.30	mg/Kg	<0.30
	Fluorene	0.30	mg/Kg	<0.30
	Anthracene	0.30	mg/Kg	<0.30
	Fluoranthene	0.30	mg/Kg	<0.30
	Pyrene	0.30	mg/Kg	<0.30
	Benzo(a)anthracene	0.30	mg/Kg	<0 30
	Chrysene	0.30	mg/Kg	<0.30
	Benzo(b)fluoranthene	0.30	mg/Kg	<0.30
	Benzo(k)fluoranthene	0.30	mg/Kg	<0.30
	Benzo(a)pyrene	0.30	mg/Kg	<0.30
	Indeno(1,2,3-cd)pyrene	0.30	mg/Kg	<0.30
	Dibenzo(a,h)anthracene	0.30	mg/Kg	<0.30
	Benzo(g,h,i)perylene	0.30	mg/Kg	<0.30
C9-C18 Aliphatic Hydrocarbons[1]		11.8	mg/Kg	210
C19-C36 Aliphatic Hydrocarbons[1]		11.8	mg/Kg	<11.8
C11-C22 Aromatic Hydrocarbons[1,2]		11.8	mg/Kg	16.1
Aliphatic Surrogate % Recovery				46
Aromatic Surrogate % Recovery				89
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				116
Fractionation Surrogate % Recovery				93
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/18/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-219 10
Method for Target Analytes:		Lab ID		W0211-21
EPH Surrogate Standards		Date Collected		2/10/11
Aliphatic: Chlorooctadecane		Date Received		2/11/11
Aromatic: o-Terphenyl		Date Extracted		2/16/11
EPH Fractionation Surrogates		Date Analyzed		2/17/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		12
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		11.2	mg/Kg	11 6
Diesel PAH Analytes	Naphthalene	0 28	mg/Kg	<0 28
	2-Methylnaphthalene	0 28	mg/Kg	<0.28
	Phenanthrene	0.28	mg/Kg	<0.28
	Acenaphthylene	0.28	mg/Kg	<0 28
Other Target PAH Analytes	Acenaphthene	0.28	mg/Kg	<0 28
	Fluorene	0 28	mg/Kg	<0 28
	Anthracene	0 28	mg/Kg	<0 28
	Fluoranthene	0 28	mg/Kg	<0 28
	Pyrene	0 28	mg/Kg	<0.28
	Benzo(a)anthracene	0 28	mg/Kg	<0 28
	Chrysene	0 28	mg/Kg	<0 28
	Benzo(b)fluoranthene	0 28	mg/Kg	<0.28
	Benzo(k)fluoranthene	0 28	mg/Kg	<0.28
	Benzo(a)pyrene	0 28	mg/Kg	<0.28
	Indeno(1,2,3-cd)pyrene	0 28	mg/Kg	<0 28
	Dibenzo(a,h)anthracene	0 28	mg/Kg	<0.28
	Benzo(g,h,i)perylene	0 28	mg/Kg	<0 28
C9-C18 Aliphatic Hydrocarbons[1]		11.2	mg/Kg	22 2
C19-C36 Aliphatic Hydrocarbons[1]		11 2	mg/Kg	17 2
C11-C22 Aromatic Hydrocarbons[1,2]		11 2	mg/Kg	11.6
Aliphatic Surrogate % Recovery				53
Aromatic Surrogate % Recovery				84
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				99
Fractionation Surrogate % Recovery				73
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE POSITION Laboratory Director
PRINTED NAME Richard Warila DATE 2/18/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-219 13/14
Method for Target Analytes:		Lab ID		W0211-21
EPH Surrogate Standards		Date Collected		2/10/11
Aliphatic: Chlorooctadecane		Date Received		2/11/11
Aromatic: o-Terphenyl		Date Extracted		2/16/11
EPH Fractionation Surrogates		Date Analyzed		2/17/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		20
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		12.5	mg/Kg	15.0
Diesel PAH Analytes	Naphthalene	0.31	mg/Kg	<0.31
	2-Methylnaphthalene	0.31	mg/Kg	<0.31
	Phenanthrene	0.31	mg/Kg	<0.31
	Acenaphthylene	0.31	mg/Kg	<0.31
Other Target PAH Analytes	Acenaphthene	0.31	mg/Kg	<0.31
	Fluorene	0.31	mg/Kg	<0.31
	Anthracene	0.31	mg/Kg	<0.31
	Fluoranthene	0.31	mg/Kg	<0.31
	Pyrene	0.31	mg/Kg	<0 31
	Benzo(a)anthracene	0.31	mg/Kg	<0 31
	Chrysene	0.31	mg/Kg	<0 31
	Benzo(h)fluoranthene	0.31	mg/Kg	<0 31
	Benzo(k)fluoranthene	0.31	mg/Kg	<0 31
	Benzo(a)pyrene	0.31	mg/Kg	<0.31
	Indeno(1,2,3-cd)pyrene	0 31	mg/Kg	<0 31
	Dibenzo(a,h)anthracene	0 31	mg/Kg	<0 31
	Benzo(g,h,i)perylene	0 31	mg/Kg	<0 31
C9-C18 Aliphatic Hydrocarbons[1]		12.5	mg/Kg	75.6
C19-C36 Aliphatic Hydrocarbons[1]		12.5	mg/Kg	<12 5
C11-C22 Aromatic Hydrocarbons[1,2]		12 5	mg/Kg	15 0
Aliphatic Surrogate % Recovery				45
Aromatic Surrogate % Recovery				76
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				95
Fractionation Surrogate % Recovery				73
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11 3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE POSITION Laboratory Director
PRINTED NAME Richard Warila DATE 2/18/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-220 12/14
Method for Target Analytes:		Lab ID		W0211-21
EPH Surrogate Standards		Date Collected		2/10/11
Aliphatic: Chlorooctadecane		Date Received		2/11/11
Aromatic: o-Terphenyl		Date Extracted		2/16/11
EPH Fractionation Surrogates		Date Analyzed		2/17/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		11.6
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		10.9	mg/Kg	21.9
Diesel PAH Analytes	Naphthalene	0.27	mg/Kg	0.50
	2-Methylnaphthalene	0.27	mg/Kg	<0.27
	Phenanthrene	0.27	mg/Kg	<0.27
	Acenaphthylene	0.27	mg/Kg	<0.27
Other Target PAH Analytes	Acenaphthene	0.27	mg/Kg	<0.27
	Fluorene	0.27	mg/Kg	<0.27
	Anthracene	0.27	mg/Kg	<0.27
	Fluoranthene	0.27	mg/Kg	<0.27
	Pyrene	0.27	mg/Kg	<0.27
	Benzo(a)anthracene	0.27	mg/Kg	<0.27
	Chrysene	0.27	mg/Kg	<0.27
	Benzo(b)fluoranthene	0.27	mg/Kg	<0.27
	Benzo(k)fluoranthene	0.27	mg/Kg	<0.27
	Benzo(a)pyrene	0.27	mg/Kg	<0.27
	Indeno(1,2,3-cd)pyrene	0.27	mg/Kg	<0.27
	Dibenzo(a,h)anthracene	0.27	mg/Kg	<0.27
	Benzo(g,h,i)perylene	0.27	mg/Kg	<0.27
C9-C18 Aliphatic Hydrocarbons[1]		10.9	mg/Kg	220
C19-C36 Aliphatic Hydrocarbons[1]		10.9	mg/Kg	<10.9
C11-C22 Aromatic Hydrocarbons[1,2]		10.9	mg/Kg	21.4
Aliphatic Surrogate % Recovery				49
Aromatic Surrogate % Recovery				92
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				123
Fractionation Surrogate % Recovery				101
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/18/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-221 0/1
Method for Target Analytes:		Lab ID		W0211-21
EPH Surrogate Standards		Date Collected		2/10/11
Aliphatic: Chlorooctadecane		Date Received		2/11/11
Aromatic: o-Terphenyl		Date Extracted		2/16/11
EPH Fractionation Surrogates		Date Analyzed		2/17/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		16.6
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		11.6	mg/Kg	<11.6
Diesel PAH Analytes	Naphthalene	0.29	mg/Kg	<0.29
	2-Methylnaphthalene	0.29	mg/Kg	<0.29
	Phenanthrene	0.29	mg/Kg	<0.29
	Acenaphthylene	0.29	mg/Kg	<0.29
Other Target PAH Analytes	Acenaphthene	0.29	mg/Kg	<0.29
	Fluorene	0.29	mg/Kg	<0.29
	Anthracene	0.29	mg/Kg	<0.29
	Fluoranthene	0.29	mg/Kg	<0.29
	Pyrene	0.29	mg/Kg	<0.29
	Benzo(a)anthracene	0.29	mg/Kg	<0.29
	Chrysene	0.29	mg/Kg	<0.29
	Benzo(b)fluoranthene	0.29	mg/Kg	<0.29
	Benzo(k)fluoranthene	0.29	mg/Kg	<0.29
	Benzo(a)pyrene	0.29	mg/Kg	<0.29
	Indeno(1,2,3-cd)pyrene	0.29	mg/Kg	<0.29
	Dibenzo(a,h)anthracene	0.29	mg/Kg	<0.29
	Benzo(g,h,i)perylene	0.29	mg/Kg	<0.29
C9-C18 Aliphatic Hydrocarbons[1]		11.6	mg/Kg	<11.6
C19-C36 Aliphatic Hydrocarbons[1]		11.6	mg/Kg	<11.6
C11-C22 Aromatic Hydrocarbons[1,2]		11.6	mg/Kg	<11.6
Aliphatic Surrogate % Recovery				46
Aromatic Surrogate % Recovery				98
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				127
Fractionation Surrogate % Recovery				99
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/18/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-222 6/7
Method for Target Analytes:		Lab ID		W0211-21
EPH Surrogate Standards		Date Collected		2/10/11
Aliphatic: Chlorooctadecane		Date Received		2/11/11
Aromatic: o-Terphenyl		Date Extracted		2/16/11
EPH Fractionation Surrogates		Date Analyzed		2/17/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		11.5
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		10.8	mg/Kg	<10.8
Diesel PAH Analytes	Naphthalene	0.27	mg/Kg	<0.27
	2-Methylnaphthalene	0.27	mg/Kg	<0.27
	Phenanthrene	0.27	mg/Kg	<0.27
	Acenaphthylene	0.27	mg/Kg	<0.27
Other Target PAH Analytes	Acenaphthene	0.27	mg/Kg	<0.27
	Fluorene	0.27	mg/Kg	<0.27
	Anthracene	0.27	mg/Kg	<0.27
	Fluoranthene	0.27	mg/Kg	<0.27
	Pyrene	0.27	mg/Kg	<0.27
	Benzo(a)anthracene	0.27	mg/Kg	<0.27
	Chrysene	0.27	mg/Kg	<0.27
	Benzo(b)fluoranthene	0.27	mg/Kg	<0.27
	Benzo(k)fluoranthene	0.27	mg/Kg	<0.27
	Benzo(a)pyrene	0.27	mg/Kg	<0.27
	Indeno(1,2,3-cd)pyrene	0.27	mg/Kg	<0.27
	Dibenzo(a,h)anthracene	0.27	mg/Kg	<0.27
	Benzo(g,h,i)perylene	0.27	mg/Kg	<0.27
C9-C18 Aliphatic Hydrocarbons[1]		10.8	mg/Kg	<10.8
C19-C36 Aliphatic Hydrocarbons[1]		10.8	mg/Kg	<10.8
C11-C22 Aromatic Hydrocarbons[1,2]		10.8	mg/Kg	<10.8
Aliphatic Surrogate % Recovery				62
Aromatic Surrogate % Recovery				93
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				121
Fractionation Surrogate % Recovery				98
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
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PRINTED NAME: Richard Warila DATE: 2/18/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-223 6/7
Method for Target Analytes:		Lab ID		W0211-21
EPH Surrogate Standards		Date Collected		2/10/11
1		Date Received		2/11/11
Aromatic: o-Terphenyl		Date Extracted		2/16/11
EPH Fractionation Surrogates		Date Analyzed		2/17/11, 2/18/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		11.7
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		11.3	mg/Kg	<11.3
Diesel PAH Analytes	Naphthalene	0.28	mg/Kg	<0.28
	2-Methylnaphthalene	0.28	mg/Kg	<0.28
	Phenanthrene	0.28	mg/Kg	<0.28
	Acenaphthylene	0.28	mg/Kg	<0.28
Other Target PAH Analytes	Acenaphthene	0.28	mg/Kg	<0.28
	Fluorene	0.28	mg/Kg	<0.28
	Anthracene	0.28	mg/Kg	<0.28
	Fluoranthene	0.28	mg/Kg	<0.28
	Pyrene	0.28	mg/Kg	<0.28
	Benzo(a)anthracene	0.28	mg/Kg	<0.28
	Chrysene	0.28	mg/Kg	<0.28
	Benzo(b)fluoranthene	0.28	mg/Kg	<0.28
	Benzo(k)fluoranthene	0.28	mg/Kg	<0.28
	Benzo(a)pyrene	0.28	mg/Kg	<0.28
	Indeno(1,2,3-cd)pyrene	0.28	mg/Kg	<0.28
	Dibenzo(a,h)anthracene	0.28	mg/Kg	<0.28
	Benzo(g,h,i)perylene	0.28	mg/Kg	<0.28
C9-C18 Aliphatic Hydrocarbons[1]		11.3	mg/Kg	<11.3
C19-C36 Aliphatic Hydrocarbons[1]		11.3	mg/Kg	<11.3
C11-C22 Aromatic Hydrocarbons[1,2]		11.3	mg/Kg	<11.3
Aliphatic Surrogate % Recovery				60
Aromatic Surrogate % Recovery				105
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				139
Fractionation Surrogate % Recovery				109
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

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SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/18/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-223 13/14
Method for Target Analytes		Lab ID		W0211-21
EPH Surrogate Standards		Date Collected		2/10/11
Aliphatic: Chlorooctadecane		Date Received		2/11/11
Aromatic: o-Terphenyl		Date Extracted		2/16/11
EPH Fractionation Surrogates		Date Analyzed		2/17/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		19
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		12.3	mg/Kg	<12.3
Diesel PAH Analytes	Naphthalene	0.31	mg/Kg	<0.31
	2-Methylnaphthalene	0.31	mg/Kg	<0.31
	Phenanthrene	0.31	mg/Kg	<0.31
	Acenaphthylene	0.31	mg/Kg	<0.31
Other Target PAH Analytes	Acenaphthene	0.31	mg/Kg	<0.31
	Fluorene	0.31	mg/Kg	<0.31
	Anthracene	0.31	mg/Kg	<0.31
	Fluoranthene	0.31	mg/Kg	<0.31
	Pyrene	0.31	mg/Kg	<0.31
	Benzo(a)anthracene	0.31	mg/Kg	<0.31
	Chrysene	0.31	mg/Kg	<0.31
	Benzo(b)fluoranthene	0.31	mg/Kg	<0.31
	Benzo(k)fluoranthene	0.31	mg/Kg	<0.31
	Benzo(a)pyrene	0.31	mg/Kg	<0.31
	Indeno(1,2,3-cd)pyrene	0.31	mg/Kg	<0.31
	Dibenzo(a,h)anthracene	0.31	mg/Kg	<0.31
	Benzo(g,h,i)perylene	0.31	mg/Kg	<0.31
C9-C18 Aliphatic Hydrocarbons[1]		12.3	mg/Kg	<12.3
C19-C36 Aliphatic Hydrocarbons[1]		12.3	mg/Kg	<12.3
C11-C22 Aromatic Hydrocarbons[1,2]		12.3	mg/Kg	<12.3
Aliphatic Surrogate % Recovery				49
Aromatic Surrogate % Recovery				96
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				139
Fractionation Surrogate % Recovery				115
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

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PRINTED NAME: Richard Warila DATE: 2/18/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-224 6/7
Method for Target Analytes:		Lab ID		W0211-21
EPH Surrogate Standards		Date Collected		2/10/11
Aliphatic: Chlorooctadecane		Date Received		2/11/11
Aromatic: o-Terphenyl		Date Extracted		2/16/11
EPH Fractionation Surrogates		Date Analyzed		2/17/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		10.6
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		10.9	mg/Kg	<10.9
Diesel PAH Analytes	Naphthalene	0.27	mg/Kg	<0.27
	2-Methylnaphthalene	0.27	mg/Kg	<0.27
	Phenanthrene	0.27	mg/Kg	<0.27
	Acenaphthylene	0.27	mg/Kg	<0.27
Other Target PAH Analytes	Acenaphthene	0.27	mg/Kg	<0.27
	Fluorene	0.27	mg/Kg	<0.27
	Anthracene	0.27	mg/Kg	<0.27
	Fluoranthene	0.27	mg/Kg	<0.27
	Pyrene	0.27	mg/Kg	<0.27
	Benzo(a)anthracene	0.27	mg/Kg	<0.27
	Chrysene	0.27	mg/Kg	<0.27
	Benzo(b)fluoranthene	0.27	mg/Kg	<0.27
	Benzo(k)fluoranthene	0.27	mg/Kg	<0.27
	Benzo(a)pyrene	0.27	mg/Kg	<0.27
	Indeno(1,2,3-cd)pyrene	0.27	mg/Kg	<0.27
	Dibenzo(a,h)anthracene	0.27	mg/Kg	<0.27
	Benzo(g,h,i)perylene	0.27	mg/Kg	<0.27
C9-C18 Aliphatic Hydrocarbons[1]		10.9	mg/Kg	10.9
C19-C36 Aliphatic Hydrocarbons[1]		10.9	mg/Kg	10.9
C11-C22 Aromatic Hydrocarbons[1,2]		10.9	mg/Kg	10.9
Aliphatic Surrogate % Recovery				48
Aromatic Surrogate % Recovery				79
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				110
Fractionation Surrogate % Recovery				91
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

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CERTIFICATION

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SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/18/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-224 14
Method for Target Analytes:		Lab ID		W0211-21
EPH Surrogate Standards		Date Collected		2/10/11
Aliphatic: Chlorooctadecane		Date Received		2/11/11
Aromatic: o-Terphenyl		Date Extracted		2/16/11
EPH Fractionation Surrogates		Date Analyzed		2/17/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		17.2
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		11.9	mg/Kg	<11.9
Diesel PAH Analytes	Naphthalene	0.30	mg/Kg	<0.30
	2-Methylnaphthalene	0.30	mg/Kg	<0.30
	Phenanthrene	0.30	mg/Kg	<0.30
	Acenaphthylene	0.30	mg/Kg	<0.30
Other Target PAH Analytes	Acenaphthene	0.30	mg/Kg	<0.30
	Fluorene	0.30	mg/Kg	<0.30
	Anthracene	0.30	mg/Kg	<0.30
	Fluoranthene	0.30	mg/Kg	<0.30
	Pyrene	0.30	mg/Kg	<0.30
	Benzo(a)anthracene	0.30	mg/Kg	<0.30
	Chrysene	0.30	mg/Kg	<0.30
	Benzo(b)fluoranthene	0.30	mg/Kg	<0.30
	Benzo(k)fluorantbene	0.30	mg/Kg	<0.30
	Benzo(a)pyrene	0.30	mg/Kg	<0.30
	Indeno(1,2,3-cd)pyrene	0.30	mg/Kg	<0.30
	Dibenzo(a,h)anthracene	0.30	mg/Kg	<0.30
	Benzo(g,h,i)perylene	0.30	mg/Kg	<0.30
C9-C18 Aliphatic Hydrocarbons[1]		11.9	mg/Kg	<11.9
C19-C36 Aliphatic Hydrocarbons[1]		11.9	mg/Kg	<11.9
C11-C22 Aromatic Hydrocarbons[1,2]		11.9	mg/Kg	<11.9
Aliphatic Surrogate % Recovery				46
Aromatic Surrogate % Recovery				91
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				138
Fractionation Surrogate % Recovery				102
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

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SIGNATURE: POSITION Laboratory Director
PRINTED NAME Richard Warila DATE 2/18/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A pH<2 pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-225
Method for Target Analytes:		Lab ID		W0211-21
EPH Surrogate Standards		Date Collected		2/10/11
Aliphatic: Chlorooctadecane		Date Received		2/11/11
Aromatic: o-Terphenyl		Date Extracted		2/16/11
EPH Fractionation Surrogates		Date Analyzed		2/17/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		14.2
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		11.4	mg/Kg	24.9
Diesel PAH Analytes	Naphthalene	0.29	mg/Kg	<0.29
	2-Methylnaphthalene	0.29	mg/Kg	<0.29
	Phenanthrene	0.29	mg/Kg	0.29
	Acenaphthylene	0.29	mg/Kg	<0.29
Other Target PAH Analytes	Acenaphthene	0.29	mg/Kg	<0.29
	Fluorene	0.29	mg/Kg	<0.29
	Anthracene	0.29	mg/Kg	<0.29
	Fluoranthene	0.29	mg/Kg	0.52
	Pyrene	0.29	mg/Kg	0.59
	Benzo(a)anthracene	0.29	mg/Kg	<0.29
	Chrysene	0.29	mg/Kg	<0.29
	Benzo(b)fluoranthene	0.29	mg/Kg	0.34
	Benzo(k)fluoranthene	0.29	mg/Kg	<0.29
	Benzo(a)pyrene	0.29	mg/Kg	<0.29
	Indeno(1,2,3-cd)pyrene	0.29	mg/Kg	<0.29
	Dibenzo(a,h)anthracene	0.29	mg/Kg	<0.29
	Benzo(g,h,i)perylene	0.29	mg/Kg	0.51
C9-C18 Aliphatic Hydrocarbons[1]		11.4	mg/Kg	<11.4
C19-C36 Aliphatic Hydrocarbons[1]		11.4	mg/Kg	<11.4
C11-C22 Aromatic Hydrocarbons[1,2]		11.4	mg/Kg	22.6
Aliphatic Surrogate % Recovery				64
Aromatic Surrogate % Recovery				105
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				115
Fractionation Surrogate % Recovery				94
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

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SIGNATURE: POSITION Laboratory Director
PRINTED NAME Richard Warila DATE 2/18/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A _ pH<2 _ pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE-226 12.5
Method for Target Analytes:	Lab ID	W0211-21
EPH Surrogate Standards	Date Collected	2/10/11
Aliphatic: Chlorooctadecane	Date Received	2/11/11
Aromatic: o-Terphenyl	Date Extracted	2/16/11
EPH Fractionation Surrogates	Date Analyzed	2/17/11, 2/18/11
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	12.9

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		11.0	mg/Kg	44.6
Diesel PAH Analytes	Napbthalene	0.27	mg/Kg	0.89
	2-Metbylnaphthalene	0.27	mg/Kg	<0.27
	Phenanthrene	0.27	mg/Kg	<0.27
	Acenapbthylene	0.27	mg/Kg	<0.27
Other Target PAH Analytes	Acenaphthene	0.27	mg/Kg	<0.27
	Fluorene	0.27	mg/Kg	<0.27
	Anthracene	0.27	mg/Kg	<0.27
	Fluoranthene	0.27	mg/Kg	<0.27
	Pyrene	0.27	mg/Kg	<0.27
	Benzo(a)anthracene	0.27	mg/Kg	<0.27
	Chrysene	0.27	mg/Kg	<0.27
	Benzo(b)fluoranthene	0.27	mg/Kg	<0.27
	Benzo(k)fluoranthene	0.27	mg/Kg	<0.27
	Benzo(a)pyrene	0.27	mg/Kg	<0.27
	Indeno(1,2,3-cd)pyrene	0.27	mg/Kg	<0.27
	Dibenzo(a,h)anthracene	0.27	mg/Kg	<0.27
	Benzo(g,h,i)perylene	0.27	mg/Kg	<0.27
C9-C18 Aliphatic Hydrocarbons[1]		11.0	mg/Kg	235
C19-C36 Aliphatic Hydrocarbons[1]		11.0	mg/Kg	42.0
C11-C22 Aromatic Hydrocarbons[1,2]		11.0	mg/Kg	43.7
Aliphatic Surrogate % Recovery				54
Aromatic Surrogate % Recovery				107
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				128
Fractionation Surrogate % Recovery				113
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

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Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

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SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/18/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	Satisfactory Broken Leaking:
Aqueous Preservatives	X N/A _ pH<2 _ pH>2 Comment:
Temperature	Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	Method Blank
Method for Target Analytes:	Lab ID	W0211-21
EPH Surrogate Standards	Date Collected	NA
Aliphatic: Chlorooctadecane	Date Received	NA
Aromatic: o-Terphenyl	Date Extracted	2/16/11
EPH Fractionation Surrogates	Date Analyzed	2/17/11
2-Fluorobiphenyl	Dilution Factor	1X
2-Bromonaphthalene	% Moisture (soil)	NA

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		10.0	mg/Kg	<10.0
Diesel PAH Analytes	Naphthalene	0.25	mg/Kg	<0.25
	2-Methylnaphthalene	0.25	mg/Kg	<0.25
	Phenanthrene	0.25	mg/Kg	<0.25
	Acenaphthylene	0.25	mg/Kg	<0.25
Other Target PAH Analytes	Acenaphthene	0.25	mg/Kg	<0.25
	Fluorene	0.25	mg/Kg	<0.25
	Anthracene	0.25	mg/Kg	<0.25
	Fluoranthene	0.25	mg/Kg	<0.25
	Pyrene	0.25	mg/Kg	<0.25
	Benzo(a)anthracene	0.25	mg/Kg	<0.25
	Chrysene	0.25	mg/Kg	<0.25
	Benzo(b)fluoranthene	0.25	mg/Kg	<0.25
	Benzo(k)fluoranthene	0.25	mg/Kg	<0.25
	Benzo(a)pyrene	0.25	mg/Kg	<0.25
	Indeno(1,2,3-cd)pyrene	0.25	mg/Kg	<0.25
	Dibenzo(a,h)anthracene	0.25	mg/Kg	<0.25
	Benzo(g,h,i)perylene	0.25	mg/Kg	<0.25
C9-C18 Aliphatic Hydrocarbons[1]		10.0	mg/Kg	<10.0
C19-C36 Aliphatic Hydrocarbons[1]		10.0	mg/Kg	<10.0
C11-C22 Aromatic Hydrocarbons[1,2]		10.0	mg/Kg	<10.0
Aliphatic Surrogate % Recovery				50
Aromatic Surrogate % Recovery				101
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				116
Fractionation Surrogate % Recovery				98
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/18/2011

```
             Spike Recovery and RPD Summary Report - SOIL

Method       : C:\HPCHEM\1\METHODS\EPHALI1.M (Chemstation Integrator)
Title        :
Last Update  : Fri Jan 28 09:35:27 2011
Response via : Initial Calibration

Non-Spiked Sample:  J021702.D

            Spike                                Spike
            Sample                               Duplicate Sample
---------------------------------------------------------------------------
File ID :   J021703.D                          | J021704.D
Sample  :   LES 2-16 HX                        | LESD 2-16 HX
Acq Time:   17 Feb 2011   1:35 pm              | 17 Feb 2011   2:03 pm
---------------------------------------------------------------------------

Compound                Sample Spike Spike  Dup  Spike  Dup  RPD    QC Limits
                         Conc  Added  Res   Res  %Rec  %Rec       RPD  % Rec
---------------------------------------------------------------------------
Nonane                  | 0.0 |  40 |  13 |  12 |  32 |  31 |  6 | 25 | 30-140|
Decane                  | 0.0 |  40 |  17 |  16 |  41 |  41 |  1 | 25 | 40-140|
Dodecane                | 0.0 |  40 |  21 |  20 |  53 |  50 |  6 | 25 | 40-140|
Tetradecane             | 0.0 |  40 |  23 |  23 |  58 |  58 |  1 | 25 | 40-140|
Hexadecane              | 0.0 |  40 |  27 |  26 |  60 |  57 |  5 | 25 | 40-140|
Octadecane              | 0.0 |  40 |  29 |  29 |  68 |  68 |  1 | 25 | 40-140|
Nonadecane              | 0.0 |  40 |  27 |  27 |  68 |  66 |  2 | 25 | 40-140|
Eicosane                | 0.0 |  40 |  30 |  29 |  70 |  68 |  3 | 25 | 40-140|
Docosane                | 0.0 |  40 |  28 |  27 |  71 |  69 |  3 | 25 | 40-140|
Tetracosane             | 0.0 |  40 |  27 |  26 |  67 |  66 |  2 | 25 | 40-140|
Hexacosane              | 0.0 |  40 |  26 |  25 |  65 |  64 |  2 | 25 | 40-140|
Octacosane              | 0.0 |  40 |  26 |  25 |  64 |  62 |  3 | 25 | 40-140|
Triacontane             | 0.0 |  40 |  26 |  26 |  65 |  65 |  1 | 25 | 40-140|
Hexatriacontane         | 0.0 |  40 |  23 |  23 |  53 |  54 |  2 | 25 | 40-140|
---------------------------------------------------------------------------

  # - Fails Limit Check


          EPHALI1.M      Fri Feb 18 10:52:23 2011
```

```
             Spike Recovery and RPD Summary Report - SOIL

Method       : C:\HPCHEM\2\METHODS\ARO1-25.M (Chemstation Integrator)
Title        :
Last Update  : Tue Feb 15 10:54:09 2011
Response via : Initial Calibration

Non-Spiked Sample:  F021702.D

            Spike                                Spike
            Sample                               Duplicate Sample
---------------------------------------------------------------------------
File ID :   F021703.D                          | F021704.D
Sample  :   LES 2-16 ME                        | LESD 2-16 ME
Acq Time:   17 Feb 2011   2:24 pm              | 17 Feb 2011   3:11 pm
---------------------------------------------------------------------------

Compound                Sample Spike Spike  Dup  Spike  Dup  RPD    QC Limits
                         Conc  Added  Res   Res  %Rec  %Rec       RPD  % Rec
---------------------------------------------------------------------------
Naphthalene             | 0.0 |  40 |  28 |  26 |  69 |  65 |  7 | 25 | 40-140|
2 methyl naphthalene    | 0.0 |  40 |  27 |  23 |  68 |  57 | 17 | 25 | 40-140|
acenaphthylene          | 0.0 |  40 |  29 |  25 |  74 |  63 | 15 | 25 | 40-140|
Acenaphthene            | 0.0 |  40 |  32 |  29 |  79 |  73 |  8 | 25 | 40-140|
fluorene                | 0.0 |  40 |  29 |  28 |  73 |  70 |  5 | 25 | 40-140|
phenanthrene            | 0.0 |  40 |  37 |  34 |  92 |  84 |  8 | 25 | 40-140|
Anthracene              | 0.0 |  40 |  31 |  30 |  78 |  74 |  6 | 25 | 40-140|
Fluoranthene            | 0.0 |  40 |  37 |  36 |  92 |  90 |  2 | 25 | 40-140|
Pyrene                  | 0.0 |  40 |  37 |  33 |  92 |  83 | 10 | 25 | 40-140|
Benzo(a)anthracene      | 0.0 |  40 |  36 |  33 |  89 |  82 |  8 | 25 | 40-140|
Chrysene                | 0.0 |  40 |  33 |  30 |  83 |  75 |  9 | 25 | 40-140|
Benzo(b)fluoranthene    | 0.0 |  40 |  39 |  44 |  97 | 111 | 14 | 25 | 40-140|
Benzo(k)fluoranthene    | 0.0 |  40 |  38 |  35 |  96 |  87 |  9 | 25 | 40-140|
Benzo(a)pyrene          | 0.0 |  40 |  25 |  22 |  62 |  55 | 12 | 25 | 40-140|
Indeno(123cd)pyrene     | 0.0 |  40 |  22 |  26 |  55 |  65 | 16 | 25 | 40-140|
Dibenzo(ah)anthracen    | 0.0 |  40 |  32 |  32 |  79 |  79 |  0 | 25 | 40-140|
Benzo(ghi)perylene      | 0.0 |  40 |  35 |  31 |  87 |  76 | 13 | 25 | 40-140|
---------------------------------------------------------------------------

  # - Fails Limit Check


          ARO1-25.M      Fri Feb 18 11:17:16 2011
```

METALS RESULTS

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Metals Analysis Department certifies that the results included in this section have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

Case Number: W0211-21
Sample ID: AE-225
Date collected: 2/10/11
Matrix: Soil
Solids, %: 85.77
Sample Type: Total

Analyst KG/MM

		Preparative	Analytical		Reporting	Detection		Date of	Date
Parameter	**CAS Number**	**Method**	**Method**	**Result**	**Limit**	**Limit**	**Units**	**Preparation**	**Analyzed**
Arsenic	7440-38-2	3050B	6010B	1.55	0.78	0.78	mg/kg	2/22/11	2/22/11
Barium	7440-39-3	3050B	6010B	22.8	0.39	0.39	mg/kg	2/22/11	2/22/11
Cadmium	7440-43-9	3050B	6010B	ND	0.39	0.39	mg/kg	2/22/11	2/22/11
Chromium	7440-47-3	3050B	6010B	4.58	0.39	0.39	mg/kg	2/22/11	2/22/11
Lead	7439-92-1	3050B	6010B	83.1	0.39	0.39	mg/kg	2/22/11	2/22/11
Mercury	7439-97-6	NA	7471A	ND	0.074	0.074	mg/kg	2/22/11	2/22/11
Selenium	7782-49-2	3050B	6010B	ND	0.78	0.78	mg/kg	2/22/11	2/22/11
Silver	7440-22-4	3050B	6010B	ND	0.39	0.39	mg/kg	2/22/11	2/22/11

ND indicates not Detected

All results are reported on a dry weight basis.

Sample ID: Preparation Blank
Matrix: SOIL
Solids, %: 100
Sample Type: Total

Analyst KG/MM

		Preparative	Analytical		Reporting	Detection		Date of	Date
Parameter	**CAS Number**	**Method**	**Method**	**Result**	**Limit**	**Limit**	**Units**	**Preparation**	**Analyzed**
Arsenic	7440-38-2	3050B	6010B	ND	0.67	0.67	mg/kg	2/22/11	2/22/11
Barium	7440-39-3	3050B	6010B	ND	0.33	0.33	mg/kg	2/22/11	2/22/11
Cadmium	7440-43-9	3050B	6010B	ND	0.33	0.33	mg/kg	2/22/11	2/22/11
Chromium	7440-47-3	3050B	6010B	ND	0.33	0.33	mg/kg	2/22/11	2/22/11
Lead	7439-92-1	3050B	6010B	ND	0.33	0.33	mg/kg	2/22/11	2/22/11
Mercury	7439-97-6	NA	7471A	ND	0.067	0.067	mg/kg	2/22/11	2/22/11
Selenium	7782-49-2	3050B	6010B	ND	0.67	0.67	mg/kg	2/22/11	2/22/11
Silver	7440-22-4	3050B	6010B	ND	0.33	0.33	mg/kg	2/22/11	2/22/11

ND indicates not Detected

All results are reported on a dry weight basis

LABORATORY CONTROL SAMPLE RECOVERY

					Internal		
Parameter	**True Value**	**Result**	**Units**	**Recovery, %**	**LCL, %**	**UCL, %**	**Date Analyzed**
Arsenic	13.3	10.7	mg/kg	80	80	108	2/22/11
Barium	66.7	56.8	mg/kg	85	80	112	2/22/11
Cadmium	66.7	56.7	mg/kg	85	80	110	2/22/11
Chromium	66.7	54.7	mg/kg	82	80	114	2/22/11
Lead	66.7	53.6	mg/kg	80	80	114	2/22/11
Mercury	0.133	0.133	mg/kg	100	80	120	2/22/11
Selenium	13.3	11.3	mg/kg	85	80	111	2/22/11
Silver	33.3	36.1	mg/kg	109	80	120	2/22/11

RESULTS: VOLATILE ORGANIC COMPOUNDS

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Organics Analysis Department certifies that the samples included in this section have been prepared and analyzed using the procedures cited and that the results have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0211-21
Method: 8260
Matrix: (soil/water) SOIL
Sample wt/vol: 24.5 (g/ml) G
% Moisture 18.22
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental, Inc
Lab Sample ID: AE-218 14.5
Lab File ID: C021522.D
Date Sampled: 2/10/2011
Date Analyzed: 2/15/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: UG/KG	Q
75-01-4	Vinyl Chloride	25	U
74-83-9	Bromomethane	25	U
75-00-3	Chloroethane	25	U
67-64-1	Acetone	120	U
75-35-4	1,1-Dichloroethene	25	U
75-15-0	Carbon Disulfide	25	U
75-09-2	Methylene Chloride	25	U
1634-04-4	tert-Butyl methyl ether	25	U
156-60-5	trans-1,2 Dichloroethene	25	U
75-34-3	1,1-Dichloroethane	25	U
78-93-3	2-Butanone	120	U
594-20-7	2,2-Dichloropropane	25	U
156-59-2	cis-1,2-Dichloroethene	25	U
67-66-3	Chloroform	25	U
74-97-5	Bromochloromethane	25	U
71-55-6	1,1,1-Trichloroethane	25	U
563-58-6	1,1-Dichloropropene	25	U
56-23-5	Carbon Tetrachloride	25	U
71-43-2	Benzene	25	U
107-06-2	1,2-Dichloroethane	25	U
79-01-6	Trichloroethene	25	U
78-87-5	1,2-Dichloropropane	25	U
75-27-4	Bromodichloromethane	25	U
74-95-3	Dibromomethane	25	U
108-10-1	4-Methyl-2-pentanone	120	U
106-93-4	Ethylene Dibromide	25	U
10061-01-5	cis-1,3-Dichloropropene	25	U
108-88-3	Toluene	25	U
10061-02-6	Trans-1,3-Dichloropropene	25	U
79-00-5	1,1,2-Trichloroethane	25	U
591-78-6	2-Hexanone	120	U
127-18-4	Tetrachloroethene	25	U
124-48-1	Chlorodibromomethane	25	U
108-90-7	Chlorobenzene	25	U
630-20-6	1,1,1,2-Tetrachloroethane	25	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

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VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0211-21
Method: 8260
Matrix: (soil/water) SOIL
Sample wt/vol: 24.5 (g/ml) G
% Moisture 18.22
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental, Inc
Lab Sample ID: AE-218 14.5
Lab File ID: C021522.D
Date Sampled: 2/10/2011
Date Analyzed: 2/15/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: UG/KG	Q
100-41-4	Ethylbenzene	25	U
1330-20-7	m & p-Xylene	50	U
95-47-6	o-Xylene	25	U
100-42-5	Styrene	25	U
75-25-2	Bromoform	25	U
98-82-8	Isopropylbenzene	25	U
79-34-5	1,1,2,2-Tetrachloroethane	25	U
108-86-1	Bromobenzene	25	U
96-18-4	1,2,3-Trichloropropane	25	U
95-49-8	2-Chlorotoluene	25	U
103-65-1	n-Propylbenzene	25	U
108-67-8	1,3,5-Trimethylbenzene	25	U
106-43-4	4-Chlorotoluene	25	U
98-06-6	tert-Butylbenzene	25	U
95-63-6	1,2,4-Trimethylbenzene	37	
135-98-8	sec-Butylbenzene	25	U
99-87-6	p-Isopropyltoluene	25	U
75-87-3	Chloromethane	25	U
75-65-0	tert butyl alcohol	25	U
541-73-1	1,3-Dichlorobenzene	25	U
109-99-9	Tetrahydrofuran	25	U
106-46-7	1,4-Dichlorobenzene	25	U
60-29-7	Diethyl Ether	25	U
104-51-8	n-Butylbenzene	25	U
95-50-1	1,2-Dichlorobenzene	25	U
96-12-8	1,2-Dibromo-3-chloropropane	25	U
120-82-1	1,2,4-Trichlorobenzene	25	U
87-68-3	Hexachlorobutadiene	25	U
91-20-3	Naphthalene	25	U
87-61-6	1,2,3-Trichlorobenzene	25	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

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VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0211-21
Method: 8260
Matrix: (soil/water) SOIL
Sample wt/vol: 23.9 (g/ml) G
% Moisture 19.71
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental, Inc
Lab Sample ID: AE-219 13/14
Lab File ID: C021526.D
Date Sampled: 2/10/2011
Date Analyzed: 2/15/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: UG/KG	Q
75-01-4	Vinyl Chloride	26	U
74-83-9	Bromomethane	26	U
75-00-3	Chloroethane	26	U
67-64-1	Acetone	130	U
75-35-4	1,1-Dichloroethene	26	U
75-15-0	Carbon Disulfide	26	U
75-09-2	Methylene Chloride	26	U
1634-04-4	tert-Butyl methyl ether	26	U
156-60-5	trans-1,2 Dichloroethene	26	U
75-34-3	1,1-Dichloroethane	26	U
78-93-3	2-Butanone	130	U
594-20-7	2,2-Dichloropropane	26	U
156-59-2	cis-1,2-Dichloroethene	26	U
67-66-3	Chloroform	26	U
74-97-5	Bromochloromethane	26	U
71-55-6	1,1,1-Trichloroethane	26	U
563-58-6	1,1-Dichloropropene	26	U
56-23-5	Carbon Tetrachloride	26	U
71-43-2	Benzene	26	U
107-06-2	1,2-Dichloroethane	26	U
79-01-6	Trichloroethene	26	U
78-87-5	1,2-Dichloropropane	26	U
75-27-4	Bromodichloromethane	26	U
74-95-3	Dibromomethane	26	U
108-10-1	4-Methyl-2-pentanone	130	U
106-93-4	Ethylene Dibromide	26	U
10061-01-5	cis-1,3-Dichloropropene	26	U
108-88-3	Toluene	26	U
10061-02-6	Trans-1,3-Dichloropropene	26	U
79-00-5	1,1,2-Trichloroethane	26	U
591-78-6	2-Hexanone	130	U
127-18-4	Tetrachloroethene	26	U
124-48-1	Chlorodibromomethane	26	U
108-90-7	Chlorobenzene	26	U
630-20-6	1,1,1,2-Tetrachloroethane	26	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0211-21
Method: 8260
Matrix. (soil/water) SOIL
Sample wt/vol. 23.9 (g/ml) G
% Moisture 19.71
Soil Extract Volume: (uL)
Analyst's Initials.

Client Name. Action Environmental, Inc
Lab Sample ID: AE-219 13/14
Lab File ID: C021526.D
Date Sampled: 2/10/2011
Date Analyzed: 2/15/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: UG/KG	Q
100-41-4	Ethylbenzene	26	U
1330-20-7	m & p-Xylene	52	U
95-47-6	o-Xylene	26	U
100-42-5	Styrene	26	U
75-25-2	Bromoform	26	U
98-82-8	Isopropylbenzene	640	
79-34-5	1,1,2,2-Tetrachloroethane	26	U
108-86-1	Bromobenzene	26	U
96-18-4	1,2,3-Trichloropropane	26	U
95-49-8	2-Chlorotoluene	26	U
103-65-1	n-Propylbenzene	1900	
108-67-8	1,3,5-Trimethylbenzene	26	U
106-43-4	4-Chlorotoluene	26	U
98-06-6	tert-Butylbenzene	320	
95-63-6	1,2,4-Trimethylbenzene	1400	
135-98-8	sec-Butylbenzene	2900	
99-87-6	p-Isopropyltoluene	4400	
75-87-3	Chloromethane	26	U
75-65-0	tert butyl alcohol	26	U
541-73-1	1,3-Dichlorobenzene	26	U
109-99-9	Tetrahydrofuran	26	U
106-46-7	1,4-Dichlorobenzene	26	U
60-29-7	Diethyl Ether	26	U
104-51-8	n-Butylbenzene	730	
95-50-1	1,2-Dichlorobenzene	26	U
96-12-8	1,2-Dibromo-3-chloropropane	26	U
120-82-1	1,2,4-Trichlorobenzene	26	U
87-68-3	Hexachlorobutadiene	26	U
91-20-3	Naphthalene	26	U
87-61-6	1,2,3-Trichlorobenzene	26	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0211-21
Method: 8260
Matrix: (soil/water) SOIL
Sample wt/vol: 23.2 (g/ml) G
% Moisture 11.62
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental, Inc
Lab Sample ID: AE-220 12/14
Lab File ID: C021527.D
Date Sampled: 2/10/2011
Date Analyzed: 2/15/2011
Dilution Factor: 1.0,5
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: UG/KG	O
75-01-4	Vinyl Chloride	24	U
74-83-9	Bromomethane	24	U
75-00-3	Chloroethane	24	U
67-64-1	Acetone	120	U
75-35-4	1,1-Dichloroethene	24	U
75-15-0	Carbon Disulfide	24	U
75-09-2	Methylene Chloride	24	U
1634-04-4	tert-Butyl methyl ether	24	U
156-60-5	trans-1,2 Dichloroethene	24	U
75-34-3	1,1-Dichloroethane	24	U
78-93-3	2-Butanone	120	U
594-20-7	2,2-Dichloropropane	24	U
156-59-2	cis-1,2-Dichloroethene	24	U
67-66-3	Chloroform	24	U
74-97-5	Bromochloromethane	24	U
71-55-6	1,1,1-Trichloroethane	24	U
563-58-6	1,1-Dichloropropene	24	U
56-23-5	Carbon Tetrachloride	24	U
71-43-2	Benzene	24	U
107-06-2	1,2-Dichloroethane	24	U
79-01-6	Trichloroethene	24	U
78-87-5	1,2-Dichloropropane	24	U
75-27-4	Bromodichloromethane	24	U
74-95-3	Dibromomethane	24	U
108-10-1	4-Methyl-2-pentanone	120	U
106-93-4	Ethylene Dibromide	24	U
10061-01-5	cis-1,3-Dichloropropene	24	U
108-88-3	Toluene	24	U
10061-02-6	Trans-1,3-Dichloropropene	24	U
79-00-5	1,1,2-Trichloroethane	24	U
591-78-6	2-Hexanone	120	U
127-18-4	Tetrachloroethene	24	U
124-48-1	Chlorodibromomethane	24	U
108-90-7	Chlorobenzene	24	U
630-20-6	1,1,1,2-Tetrachloroethane	24	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No. W0211-21
Method: 8260
Matrix: (soil/water) SOIL
Sample wt/vol: 23.2 (g/ml) G
% Moisture 11.62
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental, Inc
Lab Sample ID: AE-220 12/14
Lab File ID: C021527.D
Date Sampled: 2/10/2011
Date Analyzed: 2/15/2011
Dilution Factor: 1.0,5
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: UG/KG	O
100-41-4	Ethylbenzene	24	U
1330-20-7	m & p-Xylene	49	U
95-47-6	o-Xylene	24	U
100-42-5	Styrene	24	U
75-25-2	Bromoform	24	U
98-82-8	Isopropylbenzene	920	
79-34-5	1,1,2,2-Tetrachloroethane	24	U
108-86-1	Bromobenzene	24	U
96-18-4	1,2,3-Trichloropropane	24	U
95-49-8	2-Chlorotoluene	24	U
103-65-1	n-Propylbenzene	3500	
108-67-8	1,3,5-Trimethylbenzene	4600	
106-43-4	4-Chlorotoluene	24	U
98-06-6	tert-Butylbenzene	390	
95-63-6	1,2,4-Trimethylbenzene	24000	
135-98-8	sec-Butylbenzene	3700	
99-87-6	p-Isopropyltoluene	6300	
75-87-3	Chloromethane	24	U
75-65-0	tert butyl alcohol	24	U
541-73-1	1,3-Dichlorobenzene	24	U
109-99-9	Tetrahydrofuran	24	U
106-46-7	1,4-Dichlorobenzene	24	U
60-29-7	Diethyl Ether	24	U
104-51-8	n-Butylbenzene	5700	
95-50-1	1,2-Dichlorobenzene	24	U
96-12-8	1,2-Dibromo-3-chloropropane	24	U
120-82-1	1,2,4-Trichlorobenzene	24	U
87-68-3	Hexachlorobutadiene	24	U
91-20-3	Naphthalene	1400	
87-61-6	1,2,3-Trichlorobenzene	24	U

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New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0211-21
Method: 8260
Matrix: (soil/water) SOIL
Sample wt/vol: 24.1 (g/ml) G
% Moisture 12.95
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental, Inc
Lab Sample ID: AE-226 12.5
Lab File ID: C021528.D
Date Sampled: 2/10/2011
Date Analyzed: 2/15/2011
Dilution Factor: 1.0,10
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: UG/KG	O
75-01-4	Vinyl Chloride	24	U
74-83-9	Bromomethane	24	U
75-00-3	Chloroethane	24	U
67-64-1	Acetone	120	U
75-35-4	1,1-Dichloroethene	24	U
75-15-0	Carbon Disulfide	24	U
75-09-2	Methylene Chloride	24	U
1634-04-4	tert-Butyl methyl ether	24	U
156-60-5	trans-1,2 Dichloroethene	24	U
75-34-3	1,1-Dichloroethane	24	U
78-93-3	2-Butanone	120	U
594-20-7	2,2-Dichloropropane	24	U
156-59-2	cis-1,2-Dichloroethene	24	U
67-66-3	Chloroform	24	U
74-97-5	Bromochloromethane	24	U
71-55-6	1,1,1-Trichloroethane	24	U
563-58-6	1,1-Dichloropropene	24	U
56-23-5	Carbon Tetrachloride	24	U
71-43-2	Benzene	24	U
107-06-2	1,2-Dichloroethane	24	U
79-01-6	Trichloroethene	24	U
78-87-5	1,2-Dichloropropane	24	U
75-27-4	Bromodichloromethane	24	U
74-95-3	Dibromomethane	24	U
108-10-1	4-Methyl-2-pentanone	120	U
106-93-4	Ethylene Dibromide	24	U
10061-01-5	cis-1,3-Dichloropropene	24	U
108-88-3	Toluene	24	U
10061-02-6	Trans-1,3-Dichloropropene	24	U
79-00-5	1,1,2-Trichloroethane	24	U
591-78-6	2-Hexanone	120	U
127-18-4	Tetrachloroethene	24	U
124-48-1	Chlorodibromomethane	24	U
108-90-7	Chlorobenzene	24	U
630-20-6	1,1,1,2-Tetrachloroethane	24	U

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New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0211-21	Client Name: Action Environmental, Inc
Method: 8260	Lab Sample ID: AE-226 12.5
Matrix: (soil/water) SOIL	Lab File ID: C021528.D
Sample wt/vol: 24.1 (g/ml) G	Date Sampled: 2/10/2011
% Moisture 12.95	Date Analyzed: 2/15/2011
Soil Extract Volume: (uL)	Dilution Factor: 1.0,10
Analyst's Initials:	Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: UG/KG	O
100-41-4	Ethylbenzene	24	U
1330-20-7	m & p-Xylene	48	U
95-47-6	o-Xylene	24	U
100-42-5	Styrene	24	U
75-25-2	Bromoform	24	U
98-82-8	Isopropylbenzene	3000	
79-34-5	1,1,2,2-Tetrachloroethane	24	U
108-86-1	Bromobenzene	24	U
96-18-4	1,2,3-Trichloropropane	24	U
95-49-8	2-Chlorotoluene	24	U
103-65-1	n-Propylbenzene	4300	
108-67-8	1,3,5-Trimethylbenzene	24	U
106-43-4	4-Chlorotoluene	24	U
98-06-6	tert-Butylbenzene	1000	
95-63-6	1,2,4-Trimethylbenzene	12000	
135-98-8	sec-Butylbenzene	4300	
99-87-6	p-Isopropyltoluene	3400	
75-87-3	Chloromethane	24	U
75-65-0	tert butyl alcohol	24	U
541-73-1	1,3-Dichlorobenzene	24	U
109-99-9	Tetrahydrofuran	24	U
106-46-7	1,4-Dichlorobenzene	24	U
60-29-7	Diethyl Ether	24	U
104-51-8	n-Butylbenzene	5100	
95-50-1	1,2-Dichlorobenzene	24	U
96-12-8	1,2-Dibromo-3-chloropropane	24	U
120-82-1	1,2,4-Trichlorobenzene	24	U
87-68-3	Hexachlorobutadiene	24	U
91-20-3	Naphthalene	4400	
87-61-6	1,2,3-Trichlorobenzene	24	U

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New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0211-21	Client Name: Action Environmental, Inc
Method: 8260	Lab Sample ID: VBLK021511
Matrix: (soil/water) SOIL	Lab File ID: C021515.D
Sample wt/vol: 10.0 (g/ml) G	Date Sampled: 2/10/2011
% Moisture 0	Date Analyzed: 2/15/2011
Soil Extract Volume: (uL)	Dilution Factor: 1.0
Analyst's Initials:	Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: UG/KG	O
75-01-4	Vinyl Chloride	50	U
74-83-9	Bromomethane	50	U
75-00-3	Chloroethane	50	U
67-64-1	Acetone	250	U
75-35-4	1,1-Dichloroethene	50	U
75-15-0	Carbon Disulfide	50	U
75-09-2	Methylene Chloride	50	U
1634-04-4	tert-Butyl methyl ether	50	U
156-60-5	trans-1,2 Dichloroethene	50	U
75-34-3	1,1-Dichloroethane	50	U
78-93-3	2-Butanone	250	U
594-20-7	2,2-Dichloropropane	50	U
156-59-2	cis-1,2-Dichloroethene	50	U
67-66-3	Chloroform	50	U
74-97-5	Bromochloromethane	50	U
71-55-6	1,1,1-Trichloroethane	50	U
563-58-6	1,1-Dichloropropene	50	U
56-23-5	Carbon Tetrachloride	50	U
71-43-2	Benzene	50	U
107-06-2	1,2-Dichloroethane	50	U
79-01-6	Trichloroethene	50	U
78-87-5	1,2-Dichloropropane	50	U
75-27-4	Bromodichloromethane	50	U
74-95-3	Dibromomethane	50	U
108-10-1	4-Methyl-2-pentanone	250	U
106-93-4	Ethylene Dibromide	50	U
10061-01-5	cis-1,3-Dichloropropene	50	U
108-88-3	Toluene	50	U
10061-02-6	Trans-1,3-Dichloropropene	50	U
79-00-5	1,1,2-Trichloroethane	50	U
591-78-6	2-Hexanone	250	U
127-18-4	Tetrachloroethene	50	U
124-48-1	Chlorodibromomethane	50	U
108-90-7	Chlorobenzene	50	U
630-20-6	1,1,1,2-Tetrachloroethane	50	U

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New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0211-21	Client Name: Action Environmental, Inc
Method: 8260	Lab Sample ID: VBLK021511
Matrix: (soil/water) SOIL	Lab File ID: C021515.D
Sample wt/vol: 10.0 (g/ml) G	Date Sampled: 2/10/2011
% Moisture 0	Date Analyzed: 2/15/2011
Soil Extract Volume: (uL)	Dilution Factor: 1.0
Analyst's Initials:	Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: UG/KG	O
100-41-4	Ethylbenzene	50	U
1330-20-7	m & p-Xylene	100	U
95-47-6	o-Xylene	50	U
100-42-5	Styrene	50	U
75-25-2	Bromoform	50	U
98-82-8	Isopropylbenzene	50	U
79-34-5	1,1,2,2-Tetrachloroethane	50	U
108-86-1	Bromobenzene	50	U
96-18-4	1,2,3-Trichloropropane	50	U
95-49-8	2-Chlorotoluene	50	U
103-65-1	n-Propylbenzene	50	U
108-67-8	1,3,5-Trimethylbenzene	50	U
106-43-4	4-Chlorotoluene	50	U
98-06-6	tert-Butylbenzene	50	U
95-63-6	1,2,4-Trimethylbenzene	50	U
135-98-8	sec-Butylbenzene	50	U
99-87-6	p-Isopropyltoluene	50	U
75-87-3	Chloromethane	50	U
75-65-0	tert butyl alcohol	50	U
541-73-1	1,3-Dichlorobenzene	50	U
109-99-9	Tetrahydrofuran	50	U
106-46-7	1,4-Dichlorobenzene	50	U
60-29-7	Diethyl Ether	50	U
104-51-8	n-Butylbenzene	50	U
95-50-1	1,2-Dichlorobenzene	50	U
96-12-8	1,2-Dibromo-3-chloropropane	50	U
120-82-1	1,2,4-Trichlorobenzene	50	U
87-68-3	Hexachlorobutadiene	50	U
91-20-3	Naphthalene	50	U
87-61-6	1,2,3-Trichlorobenzene	50	U

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New England Testing Laboratory, Inc.

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: New England Testing Laboratory Contract: 515 Somerville Av

Lab Code: RI010 Case No.: W0211-21 SAS No.: Action SDG No.: Action Env

Level: (low/med) MED

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	LCS021511	100	103	106	0
02	LCSD021512	99	102	100	0
03	VBLK021511	90	94	97	0
04	AE-218 14.5	116	99	93	0
05	AE-219 13/14	102	96	93	0
06	AE-220 12/14	122	102	95	0
07	AE-226 12.5	106	111	96	0

			QC LIMITS
SMC1	=	4-Bromofluorobenzene	(70-130)
SMC2	=	Toluene-D8	(70-130)
SMC3	=	1,2-Dichloroethane-D4	(70-130)

# Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

New England Testing Laboratory, Inc.

page 1 of 1

FORM II VOA-2

Volatile Organics LCS and LCSD Duplicate Results

LCS021511

Compound	LCS True Value	LCS Result	Recovery, %	LCSD True Value	LCSD Result	Recovery, %	Recovery QC Limits	Units	RPD, %	RPD Limits
Dichlorodifluoromethane	50	54.1	108	50	55.0	110	70-130%	ug/L	1.8	20.0
Chloromethane	50	54.2	108	50	54.0	108	70-130%	ug/L	0.5	20.0
Vinyl Chloride	50	55.6	111	50	56.0	112	70-130%	ug/L	0.6	20.0
Bromomethane	50	58.7	117	50	59.1	118	70-130%	ug/L	0.8	20.0
Chloroethane	50	55.2	110	50	52.3	105	70-130%	ug/L	5.6	20.0
Trichlorofluoromethane	50	47.6	95	50	45.1	90	70-130%	ug/L	5.4	20.0
1,1-Dichloroethene	50	54.1	108	50	49.3	99	70-130%	ug/L	9	20.0
Carbon Disulfide	50	53.3	107	50	49.5	99	70-130%	ug/L	7.3	20.0
Methylene Chloride	50	52.0	104	50	47.3	95	70-130%	ug/L	9.4	20.0
Acetone	50	50.8	102	50	49.2	98	70-130%	ug/L	3.3	20.0
Trans-1,2-dichloroethene	50	52.5	105	50	49.7	99	70-130%	ug/L	5.5	20.0
Tert butyl Methyl Ether	50	50.6	101	50	48.3	97	70-130%	ug/L	4.6	20.0
Diisopropyl Ether	50	51.7	103	50	48.2	96	70-130%	ug/L	6.9	20.0
1,1-Dichloroethane	50	49.5	99	50	46.9	94	70-130%	ug/L	5.4	20.0
Ethyl Tery-butyl Ether	50	50.6	101	50	49.2	98	70-130%	ug/L	2.8	20.0
Cis-1,2-dichloroethene	50	51.5	103	50	46.3	93	70-130%	ug/L	10.6	20.0
2,2-Dichloropropane	50	52.8	106	50	49.7	99	70-130%	ug/L	6.0	20.0
Bromochloromethane	50	52.0	104	50	50.4	101	70-130%	ug/L	3.0	20.0
Chloroform	50	51.2	102	50	48.6	97	70-130%	ug/L	5.2	20.0
Carbon Tetrachloride	50	50.9	102	50	50.4	101	70-130%	ug/L	1.1	20.0
1,1,1-Trichloroethane	50	52.1	104	50	51.6	103	70-130%	ug/L	0.9	20.0
2-Butanone	50	51.7	103	50	57.5	115	70-130%	ug/L	10.5	20.0
1,1-Dichloropropene	50	48.9	98	50	57.2	114	70-130%	ug/L	15.6	20.0
Benzene	50	53.0	106	50	52.3	105	70-130%	ug/L	1.3	20.0
Tert-butyl Alcohol	50	43.5	87	50	48.0	96	70-130%	ug/L	9.9	20.0
Tert-amyl Methyl Ether	50	54.8	110	50	53.2	106	70-130%	ug/L	3.0	20.0
1,2-Dichloroethane	50	50.0	100	50	49.1	98	70-130%	ug/L	1.8	20.0
Trichloroethene	50	51.3	103	50	49.3	99	70-130%	ug/L	3.8	20.0
Dibromomethane	50	52.2	104	50	49.9	100	70-130%	ug/L	4.5	20.0
1,2-Dichloropropane	50	54.5	109	50	53.1	106	70-130%	ug/L	2.5	20.0
Bromodichloromethane	50	51.9	104	50	53.3	107	70-130%	ug/L	1.3	20.0
Cis-1,3-dichloropropene	50	56.5	113	50	54.0	108	70-130%	ug/L	4.6	20.0
2-CEVE	50	53.6	107	50	47.8	96	70-130%	ug/L	11.3	20.0
Toluene	50	52.4	105	50	51.5	103	70-130%	ug/L	1.8	20.0
4-Methyl-2-Pentanone	50	53.2	106	50	50.1	100	70-130%	ug/L	5.9	20.0
Tetrachloroethene	50	54.3	109	50	54.8	110	70-130%	ug/L	0.9	20.0
Trans-1,3-Dichloropropene	50	50.2	100	50	49.9	100	70-130%	ug/L	0.7	20.0
1,1,2-Trichloroethane	50	54.3	109	50	52.3	105	70-130%	ug/L	3.8	20.0
Dibromochloromethane	50	50.6	101	50	50.3	101	70-130%	ug/L	0.5	20.0
1,3-Dichloropropane	50	55.1	110	50	52.9	106	70-130%	ug/L	4.1	20.0
1,2-Dibromoethane	50	50.0	100	50	45.6	91	70-130%	ug/L	9.2	20.0
2-Hexanone	50	53.5	107	50	54.3	109	70-130%	ug/L	1.4	20.0
Chlorobenzene	50	51.8	104	50	52.1	104	70-130%	ug/L	0.4	20.0
Ethylbenzene	50	53.4	107	50	54.3	109	70-130%	ug/L	1.6	20.0
m,p-Xylene	100	113.2	113	100	104.8	105	70-130%	ug/L	7.7	20.0
1,1,1,2-Tetrachloroethane	50	52.9	106	50	51.9	104	70-130%	ug/L	2.0	20.0
o-Xylene	50	55.3	111	50	55.1	110	70-130%	ug/L	0.3	20.0
Styrene	50	52.1	104	50	50.2	100	70-130%	ug/L	3.8	20.0
Bromoform	50	49.9	100	50	47.4	95	70-130%	ug/L	5.1	20.0
Isopropylbenzene	50	51.2	102	50	50.8	102	70-130%	ug/L	0.7	20.0
Bromobenzene	50	52.4	105	50	47.0	94	70-130%	ug/L	11.0	20.0
n-Propylbenzene	50	50.4	101	50	50.4	101	70-130%	ug/L	0.0	20.0
1,1,2,2-Tetrachloroethene	50	56.3	113	50	52.7	105	70-130%	ug/L	6.6	20.0
2-Chlorotoluene	50	51.2	102	50	51.0	102	70-130%	ug/L	0.3	20.0
1,2,3-Trichloropropane	50	47.9	96	50	46.7	93	70-130%	ug/L	2.5	20.0
1,3,5-Trimethylbenzene	50	49.5	99	50	50.4	101	70-130%	ug/L	1.7	20.0
4-Chlorotoluene	50	52.5	105	50	52.2	104	70-130%	ug/L	0.5	20.0
Tert-butylbenzene	50	52.6	105	50	51.9	104	70-130%	ug/L	1.5	20.0
1,2,4-Trimethylbenzene	50	51.1	102	50	50.4	101	70-130%	ug/L	1.4	20.0
Sec-butylbenzene	50	53.2	106	50	51.7	103	70-130%	ug/L	3.0	20.0
p-Isopropyltoluene	50	52.4	105	50	49.2	98	70-130%	ug/L	6.3	20.0
1,3-Dichlorobenzene	50	52.9	106	50	51.0	102	70-130%	ug/L	3.7	20.0
1,4-Dichlorobenzene	50	52.1	104	50	52.0	104	70-130%	ug/L	0.1	20.0
n-Butyl Benzene	50	53.5	107	50	51.4	103	70-130%	ug/L	4.1	20.0
1,2-Dichlorbenzene	50	53.5	107	50	51.5	103	70-130%	ug/L	3.8	20.0
1,2-Dibromo-3-chloropr	50	51.9	104	50	48.5	97	70-130%	ug/L	10.4	20.0
Hexachlorobutadiene	50	55.5	111	50	57.3	115	70-130%	ug/L	3.1	20.0
1,2,4-Trichlorobenzene	50	57.3	115	50	57.8	116	70-130%	ug/L	0.7	20.0
Naphthalene	50	57.5	115	50	53.6	107	70-130%	ug/L	6.9	20.0
1,2,3-Trichlorobenzene	50	56.6	113	50	53.9	108	70-130%	ug/L	4.9	20.0

RESULTS: VOLATILE PETROLEUM HYDROCARBONS

Results for VPH analysis are presented in the following section. Each page is electronically signed.

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		X Samples rec'd in Methanol X covering soil _ not covering	X 1:1 +/- 25%
		X Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	AE-218 14.5
Method for Target Analytes:			Lab ID	W0211-21
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene			Date Collected	2/10/11
			Date Received	2/11/11
			Date Analyzed	2/14/11
			Dilution Factor	1X
			% Moisture (soil)	18.2
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	3.0	mg/Kg	18.4
Unadjusted C9-C12 Aliphaties[1]	N/A	3.0	mg/Kg	1650
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	0.30	mg/Kg	<0.30
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Naphthalene	N/A	0.60	mg/Kg	<0.60
Toluene	C5-C8	0.30	mg/Kg	<0.30
m- & p- Xylenes	C9-C12	0.60	mg/Kg	<0.60
o-Xylene	C9-C12	0.60	mg/Kg	<0.60
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	3.0	mg/Kg	18.4
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	3.0	mg/Kg	1070
C9-C10 Aromatic Hydrocarbons[1]	N/A	3.0	mg/Kg	580
PID Surrogate % Recovery				104
FID Surrogate % Recovery				116
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/18/2011

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		X Samples rec'd in Methanol: X covering soil _ not covering	X 1:1 +/- 25%
		X Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	AE-219 10
Method for Target Analytes:			Lab ID	W0211-21
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene			Date Collected	2/10/11
			Date Received	2/11/11
			Date Analyzed	2/14/11
			Dilution Factor	1X
			% Moisture (soil)	12.4
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	2.9	mg/Kg	8.4
Unadjusted C9-C12 Aliphaties[1]	N/A	2.9	mg/Kg	1000
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	0.30	mg/Kg	<0.30
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Naphthalene	N/A	0.60	mg/Kg	<0.60
Toluene	C5-C8	0.30	mg/Kg	<0.30
m- & p- Xylenes	C9-C12	0.60	mg/Kg	<0.60
o-Xylene	C9-C12	0.60	mg/Kg	<0.60
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	2.9	mg/Kg	8.4
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	2.9	mg/Kg	570
C9-C10 Aromatic Hydrocarbons[1]	N/A	2.9	mg/Kg	430
PID Surrogate % Recovery				103
FID Surrogate % Recovery				115
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/18/2011

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		X Samples rec'd in Methanol: X covering soil _ not covering	X 1:1 +/- 25%
		X Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	AE-219 13/14
Method for Target Analytes:			Lab ID	W0211-21
VPH Surrogate Standards			Date Collected	2/10/11
PID: 2,5- Dibromotoluene			Date Received	2/11/11
FID: 2,5- Dibromotoluene			Date Analyzed	2/14/11,2/12/15/11
			Dilution Factor	1X,5X
			% Moisture (soil)	19.7
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	3.0	mg/Kg	70.6
Unadjusted C9-C12 Aliphatics[1]	N/A	15.0	mg/Kg	4600
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	0.30	mg/Kg	<0.30
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Naphthalene	N/A	0.50	mg/Kg	<0.50
Toluene	C5-C8	0.30	mg/Kg	<0.30
m- & p- Xylenes	C9-C12	0.50	mg/Kg	<0.50
o-Xylene	C9-C12	0.50	mg/Kg	<0.50
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	3.0	mg/Kg	70.6
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	15.0	mg/Kg	7500
C9-C10 Aromatic Hydrocarbons[1]	N/A	15.0	mg/Kg	2100
PID Surrogate % Recovery				103, 99
FID Surrogate % Recovery				115, 118
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/18/2011

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		X Samples rec'd in Methanol: X covering soil _ not covering	X 1:1 +/- 25%
		X Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	AE-220 12/14
Method for Target Analytes:			Lab ID	W0211-21
VPH Surrogate Standards			Date Collected	2/10/11
PID: 2,5- Dibromotoluene			Date Received	2/11/11
FID: 2,5- Dibromotoluene			Date Analyzed	2/14/11,2/15/11
			Dilution Factor	1X,5X
			% Moisture (soil)	11.6
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	3.0	mg/Kg	33.0
Unadjusted C9-C12 Aliphatics[1]	N/A	15.0	mg/Kg	2600
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	0.30	mg/Kg	<0.30
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Naphthalene	N/A	0.60	mg/Kg	1.1
Toluene	C5-C8	0.30	mg/Kg	<0.30
m- & p- Xylenes	C9-C12	0.60	mg/Kg	<0.60
o-Xylene	C9-C12	0.60	mg/Kg	<0.60
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	3.0	mg/Kg	33.0
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	15.0	mg/Kg	1300
C9-C10 Aromatic Hydrocarbons[1]	N/A	15.0	mg/Kg	1300
PID Surrogate % Recovery				104, 100
FID Surrogate % Recovery				98, 114
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/18/2011

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		X Samples rec'd in Methanol: X covering soil _ not covering	X 1:1 +/- 25%
		X Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	AE-221 0/1
Method for Target Analytes:			Lab ID	W0211-21
VPH Surrogate Standards			Date Collected	2/10/11
PID: 2,5- Dibromotoluene			Date Received	2/11/11
FID: 2,5- Dibromotoluene			Date Analyzed	2/14/11
			Dilution Factor	1X
			% Moisture (soil)	16.6
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	2.9	mg/Kg	<2.9
Unadjusted C9-C12 Aliphatics[1]	N/A	2.9	mg/Kg	<2.9
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	0.30	mg/Kg	<0.30
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Naphthalene	N/A	0.60	mg/Kg	<0.60
Toluene	C5-C8	0.30	mg/Kg	<0.30
m- & p- Xylenes	C9-C12	0.60	mg/Kg	<0.60
o-Xylene	C9-C12	0.60	mg/Kg	<0.60
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	2.9	mg/Kg	<2.9
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	2.9	mg/Kg	<2.9
C9-C10 Aromatic Hydrocarbons[1]	N/A	2.9	mg/Kg	<2.9
PID Surrogate % Recovery				99
FID Surrogate % Recovery				82
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE POSITION Laboratory Director

PRINTED NAME Richard Warila DATE: 2/18/2011

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		X Samples rec'd in Methanol: X covering soil _ not covering	X 1:1 +/- 25%
		X Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	AE-221 6/7
Method for Target Analytes:			Lab ID	W0211-21
VPH Surrogate Standards			Date Collected	2/10/11
PID. 2,5- Dibromotoluene			Date Received	2/11/11
FID: 2,5- Dibromotoluene			Date Analyzed	2/14/11
			Dilution Factor	1X
			% Moisture (soil)	16.6
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	2.9	mg/Kg	<2.9
Unadjusted C9-C12 Aliphatics[1]	N/A	2.9	mg/Kg	<2.9
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	0.30	mg/Kg	<0.30
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Naphthalene	N/A	0.60	mg/Kg	<0.60
Toluene	C5-C8	0.30	mg/Kg	<0.30
m- & p- Xylenes	C9-C12	0.60	mg/Kg	<0 60
o-Xylene	C9-C12	0.60	mg/Kg	<0.60
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	2.9	mg/Kg	<2.9
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	2.9	mg/Kg	<2.9
C9-C10 Aromatic Hydrocarbons[1]	N/A	2.9	mg/Kg	<2.9
PID Surrogate % Recovery				99
FID Surrogate % Recovery				84
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/18/2011

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		X Samples rec'd in Methanol: X covering soil _ not covering	X 1:1 +/- 25%
		X Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-222 6/7
Method for Target Analytes		Lab ID		W0211-21
VPH Surrogate Standards		Date Collected		2/10/11
PID 2,5- Dibromotoluene		Date Received		2/11/11
FID 2,5- Dibromotoluene		Date Analyzed		2/14/11
		Dilution Factor		1X
		% Moisture (soil)		11.5
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	2.7	mg/Kg	<2.7
Unadjusted C9-C12 Aliphatics[1]	N/A	2.7	mg/Kg	<2.7
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	0.30	mg/Kg	<0.30
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Naphthalene	N/A	0.50	mg/Kg	<0.50
Toluene	C5-C8	0.30	mg/Kg	<0.30
m- & p- Xylenes	C9-C12	0.50	mg/Kg	<0.50
o-Xylene	C9-C12	0.50	mg/Kg	<0.50
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	2.7	mg/Kg	<2.7
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	2.7	mg/Kg	<2.7
C9-C10 Aromatic Hydrocarbons[1]	N/A	2.7	mg/Kg	<2.7
PID Surrogate % Recovery				100
FID Surrogate % Recovery				82
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/18/2011

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		X Samples rec'd in Methanol: X covering soil _ not covering	X 1:1 +/- 25%
		X Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-223 6/7
Method for Target Analytes:		Lab ID		W0211-21
VPH Surrogate Standards		Date Collected		2/10/11
PID: 2,5- Dibromotoluene		Date Received		2/11/11
FID: 2,5- Dibromotoluene		Date Analyzed		2/14/11
		Dilution Factor		1X
		% Moisture (soil)		11.7
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	2.8	mg/Kg	<2.8
Unadjusted C9-C12 Aliphatics[1]	N/A	2.8	mg/Kg	<2.8
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	0.30	mg/Kg	<0.30
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Naphthalene	N/A	0.60	mg/Kg	<0.60
Toluene	C5-C8	0.30	mg/Kg	<0.30
m- & p- Xylenes	C9-C12	0.60	mg/Kg	<0.60
o-Xylene	C9-C12	0.60	mg/Kg	<0.60
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	2.8	mg/Kg	<2.8
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	2.8	mg/Kg	<2.8
C9-C10 Aromatic Hydrocarbons[1]	N/A	2.8	mg/Kg	<2.8
PID Surrogate % Recovery				101
FID Surrogate % Recovery				80
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/18/2011

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		X Samples rec'd in Methanol: X covering soil _ not covering	X 1:1 +/- 25%
		X Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-223 13/14
Method for Target Analytes:		Lab ID		W0211-21
VPH Surrogate Standards		Date Collected		2/10/11
PID: 2,5- Dibromotoluene		Date Received		2/11/11
FID: 2,5- Dibromotoluene		Date Analyzed		2/14/11
		Dilution Factor		1X
		% Moisture (soil)		19.2
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	3.1	mg/Kg	<3.1
Unadjusted C9-C12 Aliphatics[1]	N/A	3.1	mg/Kg	<3.1
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	0.30	mg/Kg	<0.30
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Naphthalene	N/A	0.60	mg/Kg	<0.60
Toluene	C5-C8	0.30	mg/Kg	<0.30
m- & p- Xylenes	C9-C12	0.60	mg/Kg	<0.60
o-Xylene	C9-C12	0.60	mg/Kg	<0.60
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	3.1	mg/Kg	<3.1
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	3.1	mg/Kg	<3.1
C9-C10 Aromatic Hydrocarbons[1]	N/A	3.1	mg/Kg	<3.1
PID Surrogate % Recovery				99
FID Surrogate % Recovery				82
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/18/2011

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		X Samples rec'd in Methanol: X covering soil _ not covering	X 1:1 +/- 25%
		X Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-224 6/7
Method for Target Analytes:		Lab ID		W0211-21
VPH Surrogate Standards		Date Collected		2/10/11
PID: 2,5- Dibromotoluene		Date Received		2/11/11
FID: 2,5- Dibromotoluene		Date Analyzed		2/14/11
		Dilution Factor		1X
		% Moisture (soil)		10.6
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	2.8	mg/Kg	<2.8
Unadjusted C9-C12 Aliphatics[1]	N/A	2.8	mg/Kg	<2.8
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	0.30	mg/Kg	<0.30
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Naphthalene	N/A	0.60	mg/Kg	<0.60
Toluene	C5-C8	0.30	mg/Kg	<0.30
m- & p- Xylenes	C9-C12	0.60	mg/Kg	<0.60
o-Xylene	C9-C12	0.60	mg/Kg	<0.60
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	2.8	mg/Kg	<2.8
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	2.8	mg/Kg	<2.8
C9-C10 Aromatic Hydrocarbons[1]	N/A	2.8	mg/Kg	<2.8
PID Surrogate % Recovery				97
FID Surrogate % Recovery				79
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/18/2011

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		X Samples rec'd in Methanol: X covering soil _ not covering	X 1:1 +/- 25%
		X Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-224 14
Method for Target Analytes:		Lab ID		W0211-21
VPH Surrogate Standards PID. 2,5- Dibromotoluene FID: 2,5- Dibromotoluene		Date Collected		2/10/11
		Date Received		2/11/11
		Date Analyzed		2/14/11
		Dilution Factor		1X
		% Moisture (soil)		17.2
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	2.9	mg/Kg	<2.9
Unadjusted C9-C12 Aliphatics[1]	N/A	2.9	mg/Kg	<2.9
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	0.30	mg/Kg	<0.30
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Naphthalene	N/A	0.60	mg/Kg	<0.60
Toluene	C5-C8	0.30	mg/Kg	<0.30
m- & p- Xylenes	C9-C12	0.60	mg/Kg	<0.60
o-Xylene	C9-C12	0.60	mg/Kg	<0.60
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	2.9	mg/Kg	<2.9
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	2.9	mg/Kg	<2.9
C9-C10 Aromatic Hydrocarbons[1]	N/A	2.9	mg/Kg	<2.9
PID Surrogate % Recovery				98
FID Surrogate % Recovery				83
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/18/2011

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		X Samples rec'd in Methanol: X covering soil _ not covering	X 1:1 +/- 25%
		X Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-226 12.5
Method for Target Analytes:		Lab ID		W0211-21
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene		Date Collected		2/10/11
		Date Received		2/11/11
		Date Analyzed		2/14/11,2/15/11
		Dilution Factor		1X,10X
		% Moisture (soil)		12.9
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	3.0	mg/Kg	180
Unadjusted C9-C12 Aliphatics[1]	N/A	30.0	mg/Kg	9600
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	0.30	mg/Kg	<0.30
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Naphthalene	N/A	0.60	mg/Kg	3.4
Toluene	C5-C8	0.30	mg/Kg	<0.30
m- & p- Xylenes	C9-C12	0.60	mg/Kg	<0.60
o-Xylene	C9-C12	0.60	mg/Kg	<0.60
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	3.0	mg/Kg	180
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	30.0	mg/Kg	5500
C9-C10 Aromatic Hydrocarbons[1]	N/A	30.0	mg/Kg	4100
PID Surrogate % Recovery				108, 103
FID Surrogate % Recovery				101, 124
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/18/2011

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	_ Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	_ Received on Ice _ Received at 4° C _ Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		Method Blank
Method for Target Analytes:		Lab ID		W0211-21
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene		Date Collected		NA
		Date Received		NA
		Date Analyzed		2/14/11,2/15/11
		Dilution Factor		1X
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	2.5	mg/Kg	<2.5
Unadjusted C9-C12 Aliphatics[1]	N/A	2.5	mg/Kg	<2.5
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	0.30	mg/Kg	<0.30
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Naphthalene	N/A	0.50	mg/Kg	<0.50
Toluene	C5-C8	0.30	mg/Kg	<0.30
m- & p- Xylenes	C9-C12	0.50	mg/Kg	<0.50
o-Xylene	C9-C12	0.50	mg/Kg	<0.50
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	2.5	mg/Kg	<2.5
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	2.5	mg/Kg	<2.5
C9-C10 Aromatic Hydrocarbons[1]	N/A	2.5	mg/Kg	<2.5
PID Surrogate % Recovery				113, 101
FID Surrogate % Recovery				88, 86
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE POSITION Laboratory Director
PRINTED NAME Richard Warila DATE 2/18/2011

```
              Spike Recovery and RPD Summary Report -

Method        : C:\HPCHEM\1\METHODS\VPHQUANT.M (Chemstation Integrator)
Title         :
Last Update   : Wed Jan 19 08:29:42 2011
Response via  : Initial Calibration

Non-Spiked Sample:  D021405.D

           Spike                                 Spike
           Sample                                Duplicate Sample
--------------------------------------------------------------------------
File ID :  D021402.D                           | D021403.D
Sample  :  LCS021411                           | LCSD021411
Acq Time:  14 Feb 2011  10:43 am                | 14 Feb 2011  11:24 am
--------------------------------------------------------------------------

Compound                 Sample Spike Spike  Dup  Spike  Dup  RPD    QC Limits
                          Conc  Added  Rcs   Res  %Rec  %Rec       RPD  % Rec
--------------------------------------------------------------------------
Pentane                 | 0.0 |  50 |  59 |  56 | 117 | 113 |  4 | 25 | 70-130|
2-Methyl pentane        | 0.0 |  50 |  56 |  55 | 112 | 110 |  1 | 25 | 70-130|
2,2,4-trimethylpenta| 0.0 |  50 |  58 |  58 | 116 | 116 |  0 | 25 | 70-130|
Nonane                  | 0.0 |  50 |  47 |  43 |  94 |  86 |  8 | 25 | 70-130|
n-decane                | 0.0 |  50 |  45 |  43 |  91 |  87 |  5 | 25 | 70-130|
n-butylcyclohexane      | 0.0 |  50 |  48 |  49 |  95 |  98 |  3 | 25 | 70-130|
MTBE #2                 | 0.0 |  50 |  51 |  54 | 101 | 108 |  6 | 25 | 70-130|
Benzene #2              | 0.0 |  50 |  59 |  57 | 118 | 115 |  3 | 25 | 70-130|
Toluene #2              | 0.0 |  50 |  41 |  40 |  83 |  81 |  2 | 25 | 70-130|
Ethylbenzene #2         | 0.0 |  50 |  46 |  47 |  93 |  94 |  1 | 25 | 70-130|
M&P Xylene #2           | 0.0 | 100 |  84 |  86 |  84 |  86 |  2 | 25 | 70-130|
O Xylene #2             | 0.0 |  50 |  46 |  45 |  92 |  90 |  2 | 25 | 70-130|
1,2,4-Trimethylbenze| 0.0 |  50 |  42 |  41 |  85 |  83 |  2 | 25 | 70-130|
Naphthlene              | 0.0 |  50 |  49 |  49 |  97 |  99 |  2 | 25 | 70-130|
--------------------------------------------------------------------------

  # - Fails Limit Check


              VPHQUANT.M     Thu Feb 17 10:17:27 2011
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            Spike Recovery and RPD Summary Report -

Method        : C:\HPCHEM\1\METHODS\VPHQUANT.M (Chemstation Integrator)
Title         :
Last Update   : Wed [illegible] 19 8:29:42 2011
Response via  : Initial Calibration

Non Spiked Sample:  D[illegible]15[illegible]5.D

              Spike                              Spike
              Sample                             Duplicate Sample
              -------------------------------------------------------
File ID   :   D[illegible]150[illegible].D                        | D021503.D
Sample    :   LCS021511                          | LCSD021511
Acq Time  :   15 Feb 2011   9.53 am              | 15 Feb 2011  10:34 am
              -------------------------------------------------------

Compound                Sample Spike Spike  Dup  Spike  Dup   RPD    QC Limits
                         Conc  Added  Res   Res  %Rec  %Rec        RPD  % Rec
                        ------------------------------------------------------
Pentane               |  0.0 |  50 |  53 |  54 | 106 | 107 |  1 | 25 | 70-130|
2-Methyl pentane      |  0.0 |  50 |  51 |  51 | 101 | 103 |  1 | 25 | 70-130|
2,2,4 trimethylpenta  |  0.0 |  50 |  52 |  55 | 104 | 109 |  5 | 25 | 70-130|
Nonane                |  0.0 |  50 |  42 |  44 |  85 |  88 |  3 | 25 | 70-130|
n decane              |  0.0 |  50 |  46 |  48 |  93 |  97 |  4 | 25 | 70-130|
n-butylcyclohexane    |  0.0 |  50 |  46 |  48 |  92 |  96 |  4 | 25 | 70-130|
MTBE #1               |  0.0 |  50 |  58 |  54 | 117 | 109 |  7 | 25 | 70-130|
Benzene #             |  0.0 |  50 |  57 |  59 | 115 | 119 |  3 | 25 | 70-130|
Toluene #2            |  0.0 |  50 |  41 |  42 |  82 |  84 |  2 | 25 | 70-130|
Ethylbenzene #.       |  0.0 |  50 |  46 |  48 |  92 |  96 |  4 | 25 | 70-130|
M&P Xylene #2         |  0.0 | 100 |  84 |  86 |  84 |  86 |  3 | 25 | 70-130|
O Xylene #2           |  0.0 |  50 |  49 |  50 |  97 | 100 |  3 | 25 | 70-130|
1,2,4 Trimethylbenz   |  0.0 |  50 |  44 |  45 |  88 |  89 |  2 | 25 | 70-130|
Naphthalene           |  0.0 |  50 |  41 |  42 |  82 |  84 |  2 | 25 | 70-130|
                        ------------------------------------------------------

  #   Fail Limit Check


            VPHQUANT.M     Thu Feb 17 10:18:28 2011
```

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue
North Providence, RI 02904
1-888-863-8522

W0211-21
P 1 of 2

CHAIN OF CUSTODY RECORD

PROJ. NO. 3120
PROJECT NAME/LOCATION 515 SOMERVILLE AVE, SOMERVILLE, MA
CLIENT ACTION ENVIRONMENTAL BOSTON, 184 RIVERVIEW AVE, 1ST FL, WALTHAM, MA 02453
REPORT TO ROBERT HOUGHTON
INVOICE TO ANDREW CLEMONS

DATE	TIME	COMP	GRAB	SAMPLE I.D.	AQUEOUS	SOIL	OTHER	NO OF CONTAINERS	PRESERVATIVE	VPH	VOC (8260)	EPH				REMARKS
2/10/11	0915		X	AE-218-14.5		X		2	MeOH	X	X					
"	"		X	AE-218-14.5		X		1	Chill			X				
2/10/11	0945		X	AE-219-10		X		1	MeOH	X						
"	"		X	AE-219-10		X		1	Chill			X				
2/10/11	0950		X	AE-219-13/14		X		2	MeOH	X	X					
"	"		X	AE-219-13/14		X		1	Chill			X				
2/10/11	1030		X	AE-220-12/14		X		2	MeOH	X	X					
"	"		X	AE-220-12/14		X		1	Chill			X				
2/10/11	1105		X	AE-221-9/1		X		1	MeOH	X						
"	"		X	AE-221-0/1		X		1	Chill			X				
2/10/11	1115		X	AE-221-6/7		X		2	MeOH	X						
2/10/11	1145		X	AE-222-6/7		X		2	MeOH	X						
"	"		X	AE-222-6/7		X		1	Chill			X				
2/10/11	1215		X	AE-223-6/7		X		1	MeOH	X						

Sampled by (Signature) R Houghton	Date/Time 2/10/11 1700	Received by (Signature)	Date/Time	Laboratory Remarks Temp. received 4° Cooled ☐
Relinquished by (Signature) R Houghton	Date/Time 2/11/11 1505	Received by (Signature)	Date/Time 2-11-11 15:05	
Relinquished by (Signature)	Date/Time 2-11-11 17:15	Received for Laboratory by (Signature)	Date/Time 2/11/11 17:15	

Special Instructions.
List Specific Detection
Limit Requirements
MCP S1/GW-2/3

Turnaround (Business Days) NORMAL 5 Bus DAYS

**Netlab Subcontracts the following tests: Radiologicals, Radon, Asbestos, UCMRs, Perchlorate, Bromate, Bromide, Sieve, Salmonella, Carbamates

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NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue
North Providence, RI 02904
1-888-863-8522

W0211-21
P2 of 2

CHAIN OF CUSTODY RECORD

PROJ. NO. 3120
PROJECT NAME/LOCATION 515 SOMERVILLE AVE SOMERVILLE, MA
CLIENT ACTION ENVIRONMENTAL BOSTON 184 RIVERVIEW AVE, 1ST FL, WALTHAM, MA 02453
REPORT TO
INVOICE TO

DATE	TIME	COMP	GRAB	SAMPLE I.D.	AQUEOUS	SOIL	OTHER	NO OF CONTAINERS	PRESERVATIVE	VPH	VOC (8260)	EPH	RCRA 8 METALS		REMARKS
2/10/11	1215		X	AE-223-6/7		X		1	Chill			X			
2/10/11	1235		X	AE-223-13/14		X		2	MeOH	X					
"	"		X	AE-223-13/14		X		1	Chill			X			
2/10/11	1307		X	AE-224-6/7		X		1	MeOH	X					
"	"		X	AE-224-6/7		X		1	Chill			X			
2/10/11	1320		X	AE-224-14		X		1	MeOH	X					
"	"		X	AE-224-14		X		1	Chill			X			
2/10/11	1400		X	AE-225		X		2	Chill			X	X		APPLY 20x RULE
2/10/11	1450		X	AE-226-12.5		X		2	MeOH	X	X				
"	"		X	AE-226-12.5		X		1	Chill			X			

Sampled by (Signature) R Houghton	Date/Time 2/10/11 1700	Received by (Signature)	Date/Time	Laboratory Remarks Temp. received 4° Cooled ✓
Relinquished by (Signature) R Houghton	Date/Time 2/11/11 1505	Received by (Signature)	Date/Time 2-11-11 15:05	
Relinquished by (Signature)	Date/Time 2-11-11 17 15	Received for Laboratory by (Signature)	Date/Time 2/11/11 17:15	

Special Instructions
List Specific Detection
Limit Requirements
MCP S-1/GW-2/3

Turnaround (Business Days) NORMAL 5 Bus DAYS

**Netlab Subcontracts the following tests: Radiologicals, Radon, Asbestos, UCMRs, Perchlorate, Bromate, Bromide, Sieve, Salmonella, Carbamates

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REPORT OF ANALYTICAL RESULTS

NETLAB Case Number W0211-28

Prepared for:

Attn: Robert Houghton
Action Environmental, Inc.
184 Riverview Ave.
Waltham, MA 02453

Report Date: February 18, 2011

Lab # RI010

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue, North Providence, RI 02904
(401) 353-3420

MassDEP Analytical Protocol Certification Form

Laboratory Name: New England Testing Laboratory   Project #: 3120

Project Location: 515 Somerville Avenue, Somerville, MA   RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
W0211-28

Matrices: Groundwater/Surface Water Soil/Sediment Drinking Water Air Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A x	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A x	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVQC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B x	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TQ-15 VQC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	X Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	X Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	X Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	X Yes No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	X Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	X Yes No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	X Yes No[1]

Data User Note: ***Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.***

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	X Yes No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	X Yes No[1]

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: **Position:** Laboratory Director

Printed Name: Richard Warila   **Date:** 2/18/2011

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The samples listed in Table I were submitted to New England Testing Laboratory on February 11, 2011. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. This report of analytical results pertains only to the sample(s) provide to us by the client which are indicated on the custody record. The case number for this sample submission is W0211-28.

Custody records are included in this report.

Site: 515 Somerville Avenue, Somerville, MA

TABLE I, Samples Submitted

Sample ID	Date Sampled	Matrix	Analysis Requested
AE-227 14.5-15'	2/11/11	Soil	Table II, III
AE-228 3-5'	2/11/11	Soil	Table II
AE-229 11-12.5'	2/11/11	Soil	Table II

TABLE II, Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
VPH	NA	*
EPH	NA	**

TABLE III, Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
Volatile Organic Compounds	5035	8260B

These methods are documented in:

*Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MADEP.

**Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MADEP.

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, USEPA/OSW.

New England Testing Laboratory, Inc.

CASE NARRATIVE:

Sample Receipt:

No trip blank was supplied. No field blank was supplied. (This does not qualify the analytical results but does prevent conducting these SW-846 {Chapter 1, Section 3.4} QA Audits).

The samples were all appropriately cooled and preserved upon receipt.

The samples were received in the appropriate containers.

The chain of custody was adequately completed and corresponded to the samples submitted.

EPH:

All samples were extracted and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria

VPH:

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

Volatile Organic Compounds:

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria

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RESULTS: EXTRACTABLE PETROLEUM HYDROCARBONS

Results for EPH analysis are presented in the following section. Each page is electronically signed.

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other
Containers	X Satisfactory __ Broken __ Leaking
Aqueous Preservatives	X N/A __ pH<2 __ pH>2 Comment
Temperature	X Received on Ice X Received at 4 ° C Other
Extraction Method	Water Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AF-227 14.5-15'
Method for Target Analytes		Lab ID		W0211-28
EPH Surrogate Standards		Date Collected		2/11/11
Aliphatic: Chlorooctadecane		Date Received		2/11/11
Aromatic: o-Terphenyl		Date Extracted		2/16/11
EPH Fractionation Surrogates		Date Analyzed		2/17/11, 2/18/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		22.8
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		12.9	mg/Kg	<12.9
Diesel PAH Analytes	Naphthalene	0.32	mg/Kg	<0.32
	2-Methylnaphthalene	0.32	mg/Kg	<0.32
	Phenanthrene	0.32	mg/Kg	<0.32
	Acenaphthylene	0.32	mg/Kg	<0.32
Other Target PAH Analytes	Acenaphthene	0.32	mg/Kg	<0.32
	Fluorene	0.32	mg/Kg	<0.32
	Anthracene	0.32	mg/Kg	<0.32
	Fluoranthene	0.32	mg/Kg	<0.32
	Pyrene	0.32	mg/Kg	<0.32
	Benzo(a)anthracene	0.32	mg/Kg	<0.32
	Chrysene	0.32	mg/Kg	<0.32
	Benzo(b)fluoranthene	0.32	mg/Kg	<0.32
	Benzo(k)fluoranthene	0.32	mg/Kg	<0.32
	Benzo(a)pyrene	0.32	mg/Kg	<0.32
	Indeno(1,2,3-cd)pyrene	0.32	mg/Kg	<0.32
	Dibenzo(a,h)anthracene	0.32	mg/Kg	<0.32
	Benzo(g,h,i)perylene	0.32	mg/Kg	<0.32
C9-C18 Aliphatic Hydrocarbons[1]		12.9	mg/Kg	<12.9
C19-C36 Aliphatic Hydrocarbons[1]		12.9	mg/Kg	<12.9
C11-C22 Aromatic Hydrocarbons[1,2]		12.9	mg/Kg	<12.9
Aliphatic Surrogate % Recovery				48
Aromatic Surrogate % Recovery				84
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				116
Fractionation Surrogate % Recovery				91
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes __ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes __ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No __ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/18/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	X Satisfactory __ Broken __ Leaking
Aqueous Preservatives	X N/A __ pH<2 __ pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other:
Extraction Method	Water Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AF-228 3-5'
Method for Target Analytes		Lab ID		W0211-28
EPH Surrogate Standards		Date Collected		2/11/11
Aliphatic: Chlorooctadecane		Date Received		2/11/11
Aromatic: o-Terphenyl		Date Extracted		2/16/11
EPH Fractionation Surrogates		Date Analyzed		2/17/11, 2/18/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		15.8
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		11.7	mg/Kg	<11.7
Diesel PAH Analytes	Naphthalene	0.29	mg/Kg	<0.29
	2-Methylnaphthalene	0.29	mg/Kg	<0.29
	Phenanthrene	0.29	mg/Kg	<0.29
	Acenaphthylene	0.29	mg/Kg	<0.29
Other Target PAH Analytes	Acenaphthene	0.29	mg/Kg	<0.29
	Fluorene	0.29	mg/Kg	<0.29
	Anthracene	0.29	mg/Kg	<0.29
	Fluoranthene	0.29	mg/Kg	<0.29
	Pyrene	0.29	mg/Kg	<0.29
	Benzo(a)anthracene	0.29	mg/Kg	<0.29
	Chrysene	0.29	mg/Kg	<0.29
	Benzo(b)fluoranthene	0.29	mg/Kg	<0.29
	Benzo(k)fluoranthene	0.29	mg/Kg	<0.29
	Benzo(a)pyrene	0.29	mg/Kg	<0.29
	Indeno(1,2,3-cd)pyrene	0.29	mg/Kg	<0.29
	Dibenzo(a,h)anthracene	0.29	mg/Kg	<0.29
	Benzo(g,h,i)perylene	0.29	mg/Kg	<0.29
C9-C18 Aliphatic Hydrocarbons[1]		11.7	mg/Kg	<11.7
C19-C36 Aliphatic Hydrocarbons[1]		11.7	mg/Kg	<11.7
C11-C22 Aromatic Hydrocarbons[1,2]		11.7	mg/Kg	<11.7
Aliphatic Surrogate % Recovery				53
Aromatic Surrogate % Recovery				89
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				117
Fractionation Surrogate % Recovery				89
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes __ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes __ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No __ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/18/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other
Containers	X Satisfactory __ Broken __ Leaking
Aqueous Preservatives	X N/A __ pH<2 __ pH>2 Comment:
Temperature	X Received on Ice X Received at 4 ° C Other
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AF-229 11-12.5'
Method for Target Analytes		Lab ID		W0211-28
EPH Surrogate Standards		Date Collected		2/11/11
Aliphatic: Chlorooctadecane		Date Received		2/11/11
Aromatic: o-Terphenyl		Date Extracted		2/16/11
EPH Fractionation Surrogates		Date Analyzed		2/17/11, 2/18/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		24.1
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		12.7	mg/Kg	<12.7
Diesel PAH Analytes	Naphthalene	0.32	mg/Kg	<0.32
	2-Methylnaphthalene	0.32	mg/Kg	<0.32
	Phenanthrene	0.32	mg/Kg	<0.32
	Acenaphthylene	0.32	mg/Kg	<0.32
Other Target PAH Analytes	Acenaphthene	0.32	mg/Kg	<0.32
	Fluorene	0.32	mg/Kg	<0.32
	Anthracene	0.32	mg/Kg	<0.32
	Fluoranthene	0.32	mg/Kg	<0.32
	Pyrene	0.32	mg/Kg	<0.32
	Benzo(a)anthracene	0.32	mg/Kg	<0.32
	Chrysene	0.32	mg/Kg	<0.32
	Benzo(b)fluoranthene	0.32	mg/Kg	<0.32
	Benzo(k)fluoranthene	0.32	mg/Kg	<0.32
	Benzo(a)pyrene	0.32	mg/Kg	<0.32
	Indeno(1,2,3-cd)pyrene	0.32	mg/Kg	<0.32
	Dibenzo(a,h)anthracene	0.32	mg/Kg	<0.32
	Benzo(g,h,i)perylene	0.32	mg/Kg	<0.32
C9-C18 Aliphatic Hydrocarbons[1]		12.7	mg/Kg	<12.7
C19-C36 Aliphatic Hydrocarbons[1]		12.7	mg/Kg	<12.7
C11-C22 Aromatic Hydrocarbons[1,2]		12.7	mg/Kg	<12.7
Aliphatic Surrogate % Recovery				57
Aromatic Surrogate % Recovery				92
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				116
Fractionation Surrogate % Recovery				88
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes __ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes __ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No __ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/18/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	Aqueous X Soil Sediment Other:
Containers	__ Satisfactory __ Broken __ Leaking:
Aqueous Preservatives	X N/A __ pH<2 __ pH>2 Comment:
Temperature	__ Received on Ice __ Received at 4 ° C __ Other
Extraction Method	Water: Soil: Soxhlet

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		Method Blank
Method for Target Analytes		Lab ID		W0211-28
EPH Surrogate Standards		Date Collected		NA
Aliphatic: Chlorooctadecane		Date Received		NA
Aromatic: o-Terphenyl		Date Extracted		2/16/11
EPH Fractionation Surrogates		Date Analyzed		2/17/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		NA
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		10.0	mg/Kg	<10.0
Diesel PAH Analytes	Naphthalene	0.25	mg/Kg	<0.25
	2-Methylnaphthalene	0.25	mg/Kg	<0.25
	Phenanthrene	0.25	mg/Kg	<0.25
	Acenaphthylene	0.25	mg/Kg	<0.25
Other Target PAH Analytes	Acenaphthene	0.25	mg/Kg	<0.25
	Fluorene	0.25	mg/Kg	<0.25
	Anthracene	0.25	mg/Kg	<0.25
	Fluoranthene	0.25	mg/Kg	<0.25
	Pyrene	0.25	mg/Kg	<0.25
	Benzo(a)anthracene	0.25	mg/Kg	<0.25
	Chrysene	0.25	mg/Kg	<0.25
	Benzo(b)fluoranthene	0.25	mg/Kg	<0.25
	Benzo(k)fluoranthene	0.25	mg/Kg	<0.25
	Benzo(a)pyrene	0.25	mg/Kg	<0.25
	Indeno(1,2,3-cd)pyrene	0.25	mg/Kg	<0.25
	Dibenzo(a,h)anthracene	0.25	mg/Kg	<0.25
	Benzo(g,h,i)perylene	0.25	mg/Kg	<0.25
C9-C18 Aliphatic Hydrocarbons[1]		10.0	mg/Kg	<10.0
C19-C36 Aliphatic Hydrocarbons[1]		10.0	mg/Kg	<10.0
C11-C22 Aromatic Hydrocarbons[1,2]		10.0	mg/Kg	<10.0
Aliphatic Surrogate % Recovery				50
Aromatic Surrogate % Recovery				101
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				115
Fractionation Surrogate % Recovery				98
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes __ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes __ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No __ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/18/2011

```
              Spike Recovery and RPD Summary Report - SOIL

Method       : C:\HPCHEM\1\METHODS\EPHALI1.M (Chemstation Integrator)
Title        :
Last Update  : Fri Jan 28 09:35:27 2011
Response via : Initial Calibration

Non-Spiked Sample:  J021702.D

           Spike                                Spike
           Sample                               Duplicate Sample
----------------------------------------------------------------------
File ID :  J021703.D                          | J021704.D
Sample  :  LES 2-16 HX                        | LESD 2-16 HX
Acq Time:  17 Feb 2011   1:35 pm              | 17 Feb 2011   2:03 pm
----------------------------------------------------------------------

Compound              Sample Spike Spike  Dup  Spike  Dup  RPD    QC Limits
                       Conc  Added  Res   Res  %Rec  %Rec       RPD  % Rec
----------------------------------------------------------------------
Nonane               | 0.0 |  40 |  13 |  12 |  32 |  31 |  6 | 25 | 30-140|
Decane               | 0.0 |  40 |  17 |  16 |  41 |  41 |  1 | 25 | 40-140|
Dodecane             | 0.0 |  40 |  21 |  20 |  53 |  50 |  6 | 25 | 40-140|
Tetradecane          | 0.0 |  40 |  23 |  23 |  58 |  58 |  1 | 25 | 40-140|
Hexadecane           | 0.0 |  40 |  27 |  26 |  60 |  57 |  5 | 25 | 40-140|
Octadecane           | 0.0 |  40 |  29 |  29 |  68 |  68 |  1 | 25 | 40-140|
Nonadecane           | 0.0 |  40 |  27 |  27 |  68 |  66 |  2 | 25 | 40-140|
Eicosane             | 0.0 |  40 |  30 |  29 |  70 |  68 |  3 | 25 | 40-140|
Docosane             | 0.0 |  40 |  28 |  27 |  71 |  69 |  3 | 25 | 40-140|
Tetracosane          | 0.0 |  40 |  27 |  26 |  67 |  66 |  2 | 25 | 40-140|
Hexacosane           | 0.0 |  40 |  26 |  25 |  65 |  64 |  2 | 25 | 40-140|
Octacosane           | 0.0 |  40 |  26 |  25 |  64 |  62 |  3 | 25 | 40-140|
Triacontane          | 0.0 |  40 |  26 |  26 |  65 |  65 |  1 | 25 | 40-140|
Hexatriacontane      | 0.0 |  40 |  23 |  23 |  53 |  54 |  2 | 25 | 40-140|
----------------------------------------------------------------------

  # - Fails Limit Check


          EPHALI1.M      Fri Feb 18 10:52:23 2011
```

```
              Spike Recovery and RPD Summary Report - SOIL

Method       : C:\HPCHEM\2\METHODS\ARO1-25.M (Chemstation Integrator)
Title        :
Last Update  : Tue Feb 15 10:54:09 2011
Response via : Initial Calibration

Non-Spiked Sample:  F021702.D

           Spike                                Spike
           Sample                               Duplicate Sample
----------------------------------------------------------------------
File ID :  F021703.D                          | F021704.D
Sample  :  LES 2-16 ME                        | LESD 2-16 ME
Acq Time:  17 Feb 2011   2:24 pm              | 17 Feb 2011   3:11 pm
----------------------------------------------------------------------

Compound              Sample Spike Spike  Dup  Spike  Dup  RPD    QC Limits
                       Conc  Added  Res   Res  %Rec  %Rec       RPD  % Rec
----------------------------------------------------------------------
Naphthalene          | 0.0 |  40 |  28 |  26 |  69 |  65 |  7 | 25 | 40-140|
2 methyl naphthalene| 0.0 |  40 |  27 |  23 |  68 |  57 | 17 | 25 | 40-140|
acenaphthylene       | 0.0 |  40 |  29 |  25 |  74 |  63 | 15 | 25 | 40-140|
Acenaphthene         | 0.0 |  40 |  32 |  29 |  79 |  73 |  8 | 25 | 40-140|
fluorene             | 0.0 |  40 |  29 |  28 |  73 |  70 |  5 | 25 | 40-140|
phenanthrene         | 0.0 |  40 |  37 |  34 |  92 |  84 |  8 | 25 | 40-140|
Anthracene           | 0.0 |  40 |  31 |  30 |  78 |  74 |  6 | 25 | 40-140|
Fluoranthene         | 0.0 |  40 |  37 |  36 |  92 |  90 |  2 | 25 | 40-140|
Pyrene               | 0.0 |  40 |  37 |  33 |  92 |  83 | 10 | 25 | 40-140|
Benzo(a)anthracene   | 0.0 |  40 |  36 |  33 |  89 |  82 |  8 | 25 | 40-140|
Chrysene             | 0.0 |  40 |  33 |  30 |  83 |  75 |  9 | 25 | 40-140|
Benzo(b)fluoranthene| 0.0 |  40 |  39 |  44 |  97 | 111 | 14 | 25 | 40-140|
Benzo(k)fluoranthene| 0.0 |  40 |  38 |  35 |  96 |  87 |  9 | 25 | 40-140|
Benzo(a)pyrene       | 0.0 |  40 |  25 |  22 |  62 |  55 | 12 | 25 | 40-140|
Indeno(123cd)pyrene  | 0.0 |  40 |  22 |  26 |  55 |  65 | 16 | 25 | 40-140|
Dibenzo(ah)anthracen| 0.0 |  40 |  32 |  32 |  79 |  79 |  0 | 25 | 40-140|
Benzo(ghi)perylene   | 0.0 |  40 |  35 |  31 |  87 |  76 | 13 | 25 | 40-140|
----------------------------------------------------------------------

  # - Fails Limit Check


          ARO1-25.M      Fri Feb 18 11:17:16 2011
```

RESULTS: VOLATILE PETROLEUM HYDROCARBONS

Results for VPH analysis are presented in the following section. Each page is electronically signed.

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		X Samples rec'd in Methanol: X covering soil _ not covering	X 1:1 +/- 25%
		X Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-227 14.5-15'
Method for Target Analytes:		Lab ID		W0211-28
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene		Date Collected		2/11/11
		Date Received		2/11/11
		Date Analyzed		2/14/11
		Dilution Factor		1X
		% Moisture (soil)		22.6
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	3.2	mg/Kg	<3.2
Unadjusted C9-C12 Aliphatics[1]	N/A	3.2	mg/Kg	<3.2
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	0.30	mg/Kg	<0.30
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Napbthalene	N/A	0 60	mg/Kg	<0.60
Toluene	C5-C8	0.30	mg/Kg	<0.30
m- & p- Xylenes	C9-C12	0.60	mg/Kg	<0.60
o-Xylene	C9-C12	0.60	mg/Kg	<0.60
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	3.2	mg/Kg	<3.2
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	3.2	mg/Kg	<3.2
C9-C10 Aromatic Hydrocarbons[1]	N/A	3.2	mg/Kg	<3.2
PID Surrogate % Recovery				101
FID Surrogate % Recovery				85
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: ______________________ POSITION Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/18/2011

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		X Samples rec'd in Methanol: X covering soil _ not covering	X 1:1 +/- 25%
		X Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	AE-228 3-5'
Method for Target Analytes:			Lab ID	W0211-28
VPH Surrogate Standards			Date Collected	2/11/11
PID 2,5- Dibromotoluene			Date Received	2/11/11
FID 2,5- Dibromotoluene			Date Analyzed	2/14/11
			Dilution Factor	1X
			% Moisture (soil)	15.8
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	2.8	mg/Kg	<2.8
Unadjusted C9-C12 Aliphatics[1]	N/A	2.8	mg/Kg	<2.8
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	0.30	mg/Kg	<0.30
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Naphthalene	N/A	0.60	mg/Kg	<0.60
Toluene	C5-C8	0.30	mg/Kg	<0.30
m- & p- Xylenes	C9-C12	0.60	mg/Kg	<0.60
o-Xylene	C9-C12	0.60	mg/Kg	<0 60
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	2.8	mg/Kg	<2.8
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	2.8	mg/Kg	<2.8
C9-C10 Aromatic Hydrocarbons[1]	N/A	2.8	mg/Kg	<2.8
PID Surrogate % Recovery				97
FID Surrogate % Recovery				83
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/18/2011

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		X Samples rec'd in Methanol: X covering soil _ not covering	X 1:1 +/- 25%
		X Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C _ Other: Received at ° C		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	AE-229 11-12 5'
Method for Target Analytes:			Lab ID	W0211-28
VPH Surrogate Standards			Date Collected	2/11/11
PID: 2,5- Dibromotoluene			Date Received	2/11/11
FID: 2,5- Dibromotoluene			Date Analyzed	2/14/11
			Dilution Factor	1X
			% Moisture (soil)	24.1
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	3.2	mg/Kg	<3.2
Unadjusted C9-C12 Aliphatics[1]	N/A	3.2	mg/Kg	<3.2
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	0.30	mg/Kg	<0.30
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Naphthalene	N/A	0.60	mg/Kg	<0.60
Toluene	C5-C8	0.30	mg/Kg	<0.30
m- & p- Xylenes	C9-C12	0.60	mg/Kg	<0.60
o-Xylene	C9-C12	0.60	mg/Kg	<0.60
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	3.2	mg/Kg	<3.2
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	3.2	mg/Kg	<3.2
C9-C10 Aromatic Hydrocarbons[1]	N/A	3.2	mg/Kg	<3.2
PID Surrogate % Recovery				102
FID Surrogate % Recovery				84
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/18/2011

SAMPLE INFORMATION

Matrix	_ Aqueous X Soil _ Sediment _ Other:		
Containers	_ Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	_ Received on Ice _ Received at 4° C _ Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	Method Blank
Method for Target Analytes:			Lab ID	W0211-28
VPH Surrogate Standards			Date Collected	NA
PID 2,5- Dibromotoluene			Date Received	NA
FID 2,5- Dibromotoluene			Date Analyzed	2/14/11
			Dilution Factor	1X
			% Moisture (soil)	NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	2.5	mg/Kg	<2.5
Unadjusted C9-C12 Aliphatics[1]	N/A	2.5	mg/Kg	<2.5
Benzene	C5-C8	0.30	mg/Kg	<0.30
Ethylbenzene	C9-C12	0.30	mg/Kg	<0.30
Methyl-tert-butylether	C5-C8	0.10	mg/Kg	<0.10
Naphthalene	N/A	0.50	mg/Kg	<0.50
Toluene	C5-C8	0.30	mg/Kg	<0.30
m- & p- Xylenes	C9-C12	0.50	mg/Kg	<0.50
o-Xylene	C9-C12	0.50	mg/Kg	<0.50
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	2.5	mg/Kg	<2.5
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	2.5	mg/Kg	<2 5
C9-C10 Aromatic Hydrocarbons[1]	N/A	2.5	mg/Kg	<2.5
PID Surrogate % Recovery				113
FID Surrogate % Recovery				88
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/18/2011

```
             Spike Recovery and RPD Summary Report -

Method         : C:\HPCHEM\1\METHODS\VPHQUANT.M (Chemstation Integrator)
Title          :
Last Update    : Wed Jan 19 08:29:42 2011
Response via   : Initial Calibration

Non-Spiked Sample:  D021405.D

            Spike                                  Spike
            Sample                                 Duplicate Sample
-----------------------------------------------------------------------
File ID :   D021402.D                             | D021403.D
Sample  :   LCS021411                             | LCSD021411
Acq Time:   14 Feb 2011  10:43 am                 | 14 Feb 2011  11:24 am
-----------------------------------------------------------------------

Compound                 Sample Spike Spike  Dup  Spike  Dup  RPD    QC Limits
                          Conc  Added  Res   Res  %Rec  %Rec       RPD  % Rec
-----------------------------------------------------------------------
Pentante                | 0.0 |  50 |  59 |  56 | 117 | 113 |  4 | 25 | 70-130|
2-Methyl pentane        | 0.0 |  50 |  56 |  55 | 112 | 110 |  1 | 25 | 70-130|
2,2,4-trimethylpenta| 0.0 |  50 |  58 |  58 | 116 | 116 |  0 | 25 | 70-130|
Nonane                  | 0.0 |  50 |  47 |  43 |  94 |  86 |  8 | 25 | 70-130|
n-decane                | 0.0 |  50 |  45 |  43 |  91 |  87 |  5 | 25 | 70-130|
n-butylcyclohexane      | 0.0 |  50 |  48 |  49 |  95 |  98 |  3 | 25 | 70-130|
MTBE #2                 | 0.0 |  50 |  51 |  54 | 101 | 108 |  6 | 25 | 70-130|
Benzene #2              | 0.0 |  50 |  59 |  57 | 118 | 115 |  3 | 25 | 70-130|
Toluene #2              | 0.0 |  50 |  41 |  40 |  83 |  81 |  2 | 25 | 70-130|
Ethylbenzene #2         | 0.0 |  50 |  46 |  47 |  93 |  94 |  1 | 25 | 70-130|
M&P Xylene #2           | 0.0 | 100 |  84 |  86 |  84 |  86 |  2 | 25 | 70-130|
O Xylene #2             | 0.0 |  50 |  46 |  45 |  92 |  90 |  2 | 25 | 70-130|
1,2,4-Trimethylbenze| 0.0 |  50 |  42 |  41 |  85 |  83 |  2 | 25 | 70-130|
Naphthlene              | 0.0 |  50 |  49 |  49 |  97 |  99 |  2 | 25 | 70-130|
-----------------------------------------------------------------------

  # - Fails Limit Check


             VPHQUANT.M     Thu Feb 17 10:17:27 2011
```

RESULTS: VOLATILE ORGANIC COMPOUNDS

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Organics Analysis Department certifies that the samples included in this section have been prepared and analyzed using the procedures cited and that the results have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0211-28
Method: 8260
Matrix: (soil/water) SOIL
Sample wt/vol: 14.6 (g/ml) G
% Moisture 22.55
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental, Inc
Lab Sample ID: AE-227 14.5-15'
Lab File ID: C021519.D
Date Sampled: 2/11/2011
Date Analyzed: 2/15/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: UG/KG	Q
75-01-4	Vinyl Chloride	45	U
74-83-9	Bromomethane	45	U
75-00-3	Chloroethane	45	U
67-64-1	Acetone	220	U
75-35-4	1,1-Dichloroethene	45	U
75-15-0	Carbon Disulfide	45	U
75-09-2	Methylene Chloride	45	U
1634-04-4	tert-Butyl methyl ether	45	U
156-60-5	trans-1,2 Dichloroethene	45	U
75-34-3	1,1-Dichloroethane	45	U
78-93-3	2-Butanone	220	U
594-20-7	2,2-Dichloropropane	45	U
156-59-2	cis-1,2-Dichloroethene	45	U
67-66-3	Chloroform	45	U
74-97-5	Bromochloromethane	45	U
71-55-6	1,1,1-Trichloroethane	45	U
563-58-6	1,1-Dichloropropene	45	U
56-23-5	Carbon Tetrachloride	45	U
71-43-2	Benzene	45	U
107-06-2	1,2-Dichloroethane	45	U
79-01-6	Trichloroethene	45	U
78-87-5	1,2-Dichloropropane	45	U
75-27-4	Bromodichloromethane	45	U
74-95-3	Dibromomethane	45	U
108-10-1	4-Methyl-2-pentanone	220	U
106-93-4	Ethylene Dibromide	45	U
10061-01-5	cis-1,3-Dichloropropene	45	U
108-88-3	Toluene	45	U
10061-02-6	Trans-1,3-Dichloropropene	45	U
79-00-5	1,1,2-Trichloroethane	45	U
591-78-6	2-Hexanone	220	U
127-18-4	Tetrachloroethene	45	U
124-48-1	Chlorodibromomethane	45	U
108-90-7	Chlorobenzene	45	U
630-20-6	1,1,1,2-Tetrachloroethane	45	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0211-28
Method: 8260
Matrix: (soil/water) SOIL
Sample wt/vol: 14.6 (g/ml) G
% Moisture 22.55
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental, Inc
Lab Sample ID: AE-227 14.5-15'
Lab File ID: C021519.D
Date Sampled: 2/11/2011
Date Analyzed: 2/15/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: UG/KG	Q
100-41-4	Ethylbenzene	45	U
1330-20-7	m & p-Xylene	89	U
95-47-6	o-Xylene	45	U
100-42-5	Styrene	45	U
75-25-2	Bromoform	45	U
98-82-8	Isopropylbenzene	45	U
79-34-5	1,1,2,2-Tetrachloroethane	45	U
108-86-1	Bromobenzene	45	U
96-18-4	1,2,3-Trichloropropane	45	U
95-49-8	2-Chlorotoluene	45	U
103-65-1	n-Propylbenzene	45	U
108-67-8	1,3,5-Trimethylbenzene	45	U
106-43-4	4-Chlorotoluene	45	U
98-06-6	tert-Butylbenzene	45	U
95-63-6	1,2,4-Trimethylbenzene	45	U
135-98-8	sec-Butylbenzene	45	U
99-87-6	p-Isopropyltoluene	45	U
75-87-3	Chloromethane	45	U
75-65-0	tert butyl alcohol	45	U
541-73-1	1,3-Dichlorobenzene	45	U
109-99-9	Tetrahydrofuran	45	U
106-46-7	1,4-Dichlorobenzene	45	U
60-29-7	Diethyl Ether	45	U
104-51-8	n-Butylbenzene	45	U
95-50-1	1,2-Dichlorobenzene	45	U
96-12-8	1,2-Dibromo-3-chloropropane	45	U
120-82-1	1,2,4-Trichlorobenzene	45	U
87-68-3	Hexachlorobutadiene	45	U
91-20-3	Naphthalene	45	U
87-61-6	1,2,3-Trichlorobenzene	45	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0211-28
Method: 8260
Matrix: (soil/water) SOIL
Sample wt/vol: 10.0 (g/ml) G
% Moisture 0
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental, Inc
Lab Sample ID: VBLK021511
Lab File ID: C021515.D
Date Sampled: 2/11/2011
Date Analyzed: 2/15/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: UG/KG	Q
75-01-4	Vinyl Chloride	50	U
74-83-9	Bromomethane	50	U
75-00-3	Chloroethane	50	U
67-64-1	Acetone	250	U
75-35-4	1,1-Dichloroethene	50	U
75-15-0	Carbon Disulfide	50	U
75-09-2	Methylene Chloride	50	U
1634-04-4	tert-Butyl methyl ether	50	U
156-60-5	trans-1,2 Dichloroethene	50	U
75-34-3	1,1-Dichloroethane	50	U
78-93-3	2-Butanone	250	U
594-20-7	2,2-Dichloropropane	50	U
156-59-2	cis-1,2-Dichloroethene	50	U
67-66-3	Chloroform	50	U
74-97-5	Bromochloromethane	50	U
71-55-6	1,1,1-Trichloroethane	50	U
563-58-6	1,1-Dichloropropene	50	U
56-23-5	Carbon Tetrachloride	50	U
71-43-2	Benzene	50	U
107-06-2	1,2-Dichloroethane	50	U
79-01-6	Trichloroethene	50	U
78-87-5	1,2-Dichloropropane	50	U
75-27-4	Bromodichloromethane	50	U
74-95-3	Dibromomethane	50	U
108-10-1	4-Methyl-2-pentanone	250	U
106-93-4	Ethylene Dibromide	50	U
10061-01-5	cis-1,3-Dichloropropene	50	U
108-88-3	Toluene	50	U
10061-02-6	Trans-1,3-Dichloropropene	50	U
79-00-5	1,1,2-Trichloroethane	50	U
591-78-6	2-Hexanone	250	U
127-18-4	Tetrachloroethene	50	U
124-48-1	Chlorodibromomethane	50	U
108-90-7	Chlorobenzene	50	U
630-20-6	1,1,1,2-Tetrachloroethane	50	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.:	W0211-28	Client Name:	Action Environmental, Inc
Method:	8260	Lab Sample ID:	VBLK021511
Matrix (soil/water):	SOIL	Lab File ID:	C021515.D
Sample wt/vol.:	10.0 (g/ml) G	Date Sampled:	2/11/2011
% Moisture:	0	Date Analyzed:	2/15/2011
Soil Extract Volume:	(uL)	Dilution Factor:	1.0
Analyst's Initials:		Soil Aliquot Volume:	(uL)

CAS NO.	COMPOUND	UNITS: UG/KG	Q
100-41-4	Ethylbenzene	50	U
1330-20-7	m & p-Xylene	100	U
95-47-6	o-Xylene	50	U
100-42-5	Styrene	50	U
75-25-2	Bromoform	50	U
98-82-8	Isopropylbenzene	50	U
79-34-5	1,1,2,2-Tetrachloroethane	50	U
108-86-1	Bromobenzene	50	U
96-18-4	1,2,3-Trichloropropane	50	U
95-49-8	2-Chlorotoluene	50	U
103-65-1	n-Propylbenzene	50	U
108-67-8	1,3,5-Trimethylbenzene	50	U
106-43-4	4-Chlorotoluene	50	U
98-06-6	tert-Butylbenzene	50	U
95-63-6	1,2,4-Trimethylbenzene	50	U
135-98-8	sec-Butylbenzene	50	U
99-87-6	p-Isopropyltoluene	50	U
75-87-3	Chloromethane	50	U
75-65-0	tert butyl alcohol	50	U
541-73-1	1,3-Dichlorobenzene	50	U
109-99-9	Tetrahydrofuran	50	U
106-46-7	1,4-Dichlorobenzene	50	U
60-29-7	Diethyl Ether	50	U
104-51-8	n-Butylbenzene	50	U
95-50-1	1,2-Dichlorobenzene	50	U
96-12-8	1,2-Dibromo-3-chloropropane	50	U
120-82-1	1,2,4-Trichlorobenzene	50	U
87-68-3	Hexachlorobutadiene	50	U
91-20-3	Naphthalene	50	U
87-61-6	1,2,3-Trichlorobenzene	50	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

2B
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: New England Testing laboratory Contract: 515 Somerville Av
Lab Code: RI010 Case No.: W0211-28 SAS No.: Action SDG No.: Action Env
Level: (low/med) MED

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	LCS021511	100	103	106	0
02	LCSD021511	99	102	100	0
03	VBLK021511	90	94	97	0
04	AE-227 14.5-15'	96	97	103	0

			QC LIMITS
SMC1	=	4-Bromofluorobenzene	(70-130)
SMC2	=	Toluene-D8	(70-130)
SMC3	=	1,2-Dichloroethane-D4	(70-130)

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D System Monitoring Compound diluted out

New England Testing Laboratory, Inc.

page 1 of 1 FORM II VOA-2

Volatile Organics LCS and LCSD Duplicate Results

LCS021511

Compound	LCS True Value	LCS Result	Recovery, %	LCSD True Value	LCSD Result	Recovery, %	Recovery QC Limits	Units	RPD, %	RPD Limits
Dichlorodifluoromethane	50	54.1	108	50	55.0	110	70-130%	ug/L	1.8	20.0
Chloromethane	50	54.2	109	50	54.0	108	70-130%	ug/L	0.5	20.0
Vinyl Chloride	50	55.6	111	50	56.0	112	70-130%	ug/L	0.6	20.0
Bromomethane	50	58.7	117	50	59.1	118	70-130%	ug/L	0.8	20.0
Chloroethane	50	55.2	110	50	52.3	105	70-130%	ug/L	5.6	20.0
Trichlorofluoromethane	50	47.6	95	50	45.1	90	70-130%	ug/L	5.4	20.0
1,1-Dichloroethene	50	54.1	109	50	49.3	99	70-130%	ug/L	9	20.0
Carbon Disulfide	50	53.3	107	50	49.5	99	70-130%	ug/L	7.3	20.0
Methylene Chloride	50	52.0	104	50	47.3	95	70-130%	ug/L	9.4	20.0
Acetone	50	50.8	102	50	49.2	98	70-130%	ug/L	3.3	20.0
Trans-1,2-dichloroethene	50	52.5	105	50	49.7	99	70-130%	ug/L	5.5	20.0
Tert-butyl Methyl Ether	50	50.6	101	50	48.3	97	70-130%	ug/L	4.6	20.0
Diisopropyl Ether	50	51.7	103	50	48.2	96	70-130%	ug/L	6.9	20.0
1,1-Dichloroethane	50	49.5	99	50	46.9	94	70-130%	ug/L	5.4	20.0
Ethyl Tery-butyl Ether	50	50.6	101	50	49.2	98	70-130%	ug/L	2.8	20.0
Cis-1,2-dichloroethene	50	51.5	103	50	46.3	93	70-130%	ug/L	10.6	20.0
2,2-Dichloropropane	50	52.8	106	50	49.7	99	70-130%	ug/L	6.0	20.0
Bromochloromethane	50	52.0	104	50	50.4	101	70-130%	ug/L	3.0	20.0
Chloroform	50	51.2	102	50	48.6	97	70-130%	ug/L	5.2	20.0
Carbon Tetrachloride	50	50.9	102	50	50.4	101	70-130%	ug/L	1.1	20.0
1,1,1-Trichloroethane	50	52.1	104	50	51.6	103	70-130%	ug/L	0.9	20.0
2-Butanone	50	51.7	103	50	57.5	115	70-130%	ug/L	10.5	20.0
1,1-Dichloropropene	50	48.0	96	50	57.2	114	70-130%	ug/L	15.6	20.0
Benzene	50	53.0	106	50	52.3	105	70-130%	ug/L	1.3	20.0
Tert-butyl Alcohol	50	43.5	87	50	49.0	98	70-130%	ug/L	9.9	20.0
Tert-amyl Methyl Ether	50	54.6	110	50	53.2	106	70-130%	ug/L	3.0	20.0
1,2-Dichloroethane	50	50.0	100	50	49.1	98	70-130%	ug/L	1.8	20.0
Trichloroethene	50	51.3	103	50	49.3	99	70-130%	ug/L	3.8	20.0
Dibromomethane	50	52.2	104	50	49.9	100	70-130%	ug/L	4.5	20.0
1,2-Dichloropropane	50	54.5	109	50	53.1	106	70-130%	ug/L	2.5	20.0
Bromodichloromethane	50	51.9	104	50	53.3	107	70-130%	ug/L	1.3	20.0
Cis-1,3-dichloropropene	50	56.5	113	50	54.0	108	70-130%	ug/L	4.6	20.0
2-CEVE	50	53.6	107	50	47.0	94	70-130%	ug/L	11.3	20.0
Toluene	50	52.4	105	50	51.5	103	70-130%	ug/L	1.8	20.0
4-Methyl-2-Pentanone	50	51.2	102	50	50.1	100	70-130%	ug/L	5.9	20.0
Tetrachloroethene	50	54.3	109	50	54.9	110	70-130%	ug/L	0.6	20.0
Trans-1,3-Dichloropropene	50	50.2	100	50	46.9	94	70-130%	ug/L	0.7	20.0
1,1,2-Trichloroethane	50	54.3	109	50	52.3	105	70-130%	ug/L	3.8	20.0
Dibromochloromethane	50	50.6	101	50	50.3	101	70-130%	ug/L	0.5	20.0
1,3-Dichloropropane	50	55.1	110	50	52.9	106	70-130%	ug/L	4.1	20.0
1,2-Dibromoethane	50	50.0	100	50	45.6	91	70-130%	ug/L	9.2	20.0
2-Hexanone	50	53.5	107	50	54.3	109	70-130%	ug/L	1.4	20.0
Chlorobenzene	50	51.9	104	50	52.1	104	70-130%	ug/L	0.4	20.0
Ethylbenzene	50	53.4	107	50	54.1	108	70-130%	ug/L	1.6	20.0
m,p-Xylene	100	111.2	113	100	104.0	104	70-130%	ug/L	7.7	20.0
1,1,1,2-Tetrachloroethane	50	52.9	106	50	51.9	104	70-130%	ug/L	2.0	20.0
o-Xylene	50	55.3	111	50	55.1	110	70-130%	ug/L	0.3	20.0
Styrene	50	52.1	104	50	50.2	100	70-130%	ug/L	3.8	20.0
Bromoform	50	49.9	100	50	47.4	95	70-130%	ug/L	5.1	20.0
Isopropylbenzene	50	51.2	102	50	50.9	102	70-130%	ug/L	0.7	20.0
Bromobenzene	50	52.4	105	50	47.0	94	70-130%	ug/L	11.0	20.0
n-Propylbenzene	50	50.4	101	50	50.4	101	70-130%	ug/L	0.0	20.0
1,1,2,2-Tetrachloroethane	50	56.3	113	50	52.7	105	70-130%	ug/L	6.6	20.0
2-Chlorotoluene	50	51.2	102	50	51.0	102	70-130%	ug/L	0.3	20.0
1,2,3-Trichloropropane	50	47.0	94	50	46.7	93	70-130%	ug/L	2.5	20.0
1,3,5-Trimethylbenzene	50	49.5	99	50	50.4	101	70-130%	ug/L	1.7	20.0
4-Chlorotoluene	50	52.5	105	50	52.2	104	70-130%	ug/L	0.5	20.0
Tert-butylbenzene	50	52.6	105	50	51.9	104	70-130%	ug/L	1.5	20.0
1,2,4-Trimethylbenzene	50	51.1	102	50	50.4	101	70-130%	ug/L	1.4	20.0
Sec-butylbenzene	50	53.2	106	50	51.7	103	70-130%	ug/L	3.0	20.0
p-Isopropyltoluene	50	52.4	105	50	49.2	98	70-130%	ug/L	6.3	20.0
1,3-Dichlorobenzene	50	52.9	106	50	51.0	102	70-130%	ug/L	3.7	20.0
1,4-Dichlorobenzene	50	52.1	104	50	52.0	104	70-130%	ug/L	0.1	20.0
n-Butyl Benzene	50	53.5	107	50	51.4	103	70-130%	ug/L	4.1	20.0
1,2-Dichlorobenzene	50	53.5	107	50	51.5	103	70-130%	ug/L	3.8	20.0
1,2-Dibromo-3-chloropr	50	53.9	108	50	48.5	97	70-130%	ug/L	10.4	20.0
Hexachlorobutadiene	50	55.5	111	50	57.3	115	70-130%	ug/L	3.1	20.0
1,2,4-Trichlorobenzene	50	57.3	115	50	57.9	116	70-130%	ug/L	0.7	20.0
Naphthalene	50	57.5	115	50	53.6	107	70-130%	ug/L	6.9	20.0
1,2,3-Trichlorobenzene	50	56.6	113	50	53.9	108	70-130%	ug/L	4.9	20.0

W0211-28

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue
North Providence, RI 02904
1-888-863-8522

CHAIN OF CUSTODY RECORD

PROJ. NO: 3120
PROJECT NAME/LOCATION: 515 Somerville Ave, Som'l
CLIENT: Action Environmental
REPORT TO: Robert Houghton
INVOICE TO: Andrew Clowes

DATE	TIME	COMP	GRAB	SAMPLE I.D.	AQUEOUS	SOIL	OTHER	NO OF CONTAINERS	PRESERVATIVE	VOCs by 8260	VPH	EPH	REMARKS
2-11-11	10:30	X	X	AE-227 14.5-15'		X		3	meth/	X	X	X	
2-11-11	11:30	X	X	AE-228 3-5'		X					X	X	
2-11-11	11:30	X	X	AE-229 11-12.5'		X					X	X	

Sampled by (Signature): Date/Time: 2/11/11 3:40 Received by (Signature): Date/Time: 2-11-11 3:40
Relinquished by (Signature): Date/Time: 2-11-11 17:15 Received by (Signature): Date/Time:
Relinquished by (Signature): Date/Time: Received for Laboratory by (Signature): Date/Time: 2/11/11 17:15

Laboratory Remarks: Temp. received 4° Cooled ✓

Special Instructions: List Specific Detection Limit Requirements: MCP S-1/GW 2-3

Turnaround (Business Days): 5 bus Days

**Netlab Subcontracts the following tests: Radiologicals, Radon, Asbestos, UCMRs, Perchlorate, Bromate, Bromide, Sieve, Salmonella, Carbamates

NETLAB

REPORT OF ANALYTICAL RESULTS

NETLAB Case Number W0217-42

Prepared for:

Attn: Robert Houghton/Glenn Carlson
Action Environmental, Inc.
184 Riverview Ave.
Waltham, MA 02453

Report Date: February 24, 2011

Lab # RI010

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue, North Providence, RI 02904
(401) 353-3420

Total # of Pages: 80

MassDEP Analytical Protocol Certification Form

Laboratory Name:.New England Testing Laboratory   Project #: 3120

Project Location: 515 Somerville Avenue, Somerville, MA   RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s): W0217-42

Matrices: x Groundwater/Surface Water   Soil/Sediment   Drinking Water   Air   Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A x	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A x	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B x	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	X Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	X Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	X Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	X Yes No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	X Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	X Yes No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	X Yes No[1]
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	X Yes No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	X Yes No[1]

Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: **Position:** Laboratory Director

Printed Name: Richard Warila   **Date:** 2/24/2011

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The samples listed in Table I were submitted to New England Testing Laboratory on February 17, 2011. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. This report of analytical results pertains only to the sample(s) provide to us by the client which are indicated on the custody record. The case number for this sample submission is W0217-42.

Custody records are included in this report.

Site: 515 Somerville Avenue, Somerville, MA

TABLE I, Samples Submitted

Sample ID	Date Sampled	Matrix	Analysis Requested
AE-111A	2/15/11	Water	Table II, III
AE-112	2/15/11	Water	Table II, III
AE-113	2/16/11	Water	Table II, III
AE-114	2/16/11	Water	Table II, III
AE-115	2/15/11	Water	Table II, III
AE-218	2/15/11	Water	Table II, III
AE-219	2/15/11	Water	Table II, III
AE-220	2/16/11	Water	Table II, III
AE-221	2/15/11	Water	Table II, III
AE-222	2/15/11	Water	Table II, III
AE-223	2/16/11	Water	Table II
AE-224	2/16/11	Water	Table II
AE-225	2/16/11	Water	Table II, III
AE-226	2/16/11	Water	Table II, III
AE-227	2/15/11	Water	Table II, III
AE-228	2/15/11	Water	Table II
AE-229	2/15/11	Water	Table II

TABLE II, Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
VPH	NA	*
EPH	NA	**

TABLE III, Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
Volatile Organic Compounds	5030B	8260B

These methods are documented in:

*Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MADEP.

**Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MADEP.

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, USEPA/OSW.

CASE NARRATIVE:

Sample Receipt:
No trip blank was supplied. No field blank was supplied. (This does not qualify the analytical results but does prevent conducting these SW-846 {Chapter 1, Section 3.4} QA Audits).

The samples were all appropriately cooled and preserved upon receipt.

The samples were received in the appropriate containers.

The chain of custody was adequately completed and corresponded to the samples submitted.

EPH:
All samples were extracted and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria

VPH:
All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

Volatile Organic Compounds:
All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria

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RESULTS: EXTRACTABLE PETROLEUM HYDROCARBONS

Results for EPH analysis are presented in the following section. Each page is electronically signed.

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-111A
Method for Target Analytes:		Lab ID		W0217-42
EPH Surrogate Standards		Date Collected		2/15/11
Aliphatic: Chlorooctadecane		Date Received		2/17/11
Aromatic: o-Terphenyl		Date Extracted		2/23/11
EPH Fractionation Surrogates		Date Analyzed		2/23/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1 0	ug/L	<1 0
	Phenanthrene	1.0	ug/L	<1 0
	Acenaphthylene	1 0	ug/L	<1 0
Other Target PAH Analytes	Acenaphthene	5 0	ug/L	<5.0
	Fluorene	5 0	ug/L	<5.0
	Anthracene	5 0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5 0
	Benzo(a)anthracene	1 0	ug/L	<1 0
	Chrysene	2 0	ug/L	<2 0
	Benzo(b)fluoranthene	1 0	ug/L	<1 0
	Benzo(k)fluoranthene	1 0	ug/L	<1 0
	Benzo(a)pyrene	0 2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0 5	ug/L	<0 5
	Dibenzo(a,h)anthracene	0 5	ug/L	<0.5
	Benzo(g,h,i)perylene	5 0	ug/L	<5 0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				47
Aromatic Surrogate % Recovery				87
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				92
Fractionation Surrogate % Recovery				84
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11 3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME Richard Warila DATE 2/24/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-112
Method for Target Analytes:		Lab ID		W0217-42
EPH Surrogate Standards		Date Collected		2/15/11
Aliphatic: Chlorooctadecane		Date Received		2/17/11
Aromatic: o-Terphenyl		Date Extracted		2/23/11
EPH Fractionation Surrogates		Date Analyzed		2/23/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	168
Diesel PAH Analytes	Naphthalene	1.0	ug/L	2.4
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1 0
	Acenaphthylene	1 0	ug/L	<1 0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5 0
	Fluorene	5.0	ug/L	<5 0
	Anthracene	5 0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5 0
	Benzo(a)anthracene	1 0	ug/L	<1 0
	Chrysene	2 0	ug/L	<2 0
	Benzo(h)fluoranthene	1.0	ug/L	<1 0
	Benzo(k)fluoranthene	1 0	ug/L	<1 0
	Benzo(a)pyrene	0.2	ug/L	<0 2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0 5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0 5
	Benzo(g,h,i)perylene	5 0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	166
Aliphatic Surrogate % Recovery				52
Aromatic Surrogate % Recovery				101
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				109
Fractionation Surrogate % Recovery				99
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11 3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME Richard Warila DATE 2/24/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-113
Method for Target Analytes:		Lab ID		W0217-42
EPH Surrogate Standards		Date Collected		2/16/11
Aliphatic: Chlorooctadecane		Date Received		2/17/11
Aromatic: o-Terphenyl		Date Extracted		2/23/11
EPH Fractionation Surrogates		Date Analyzed		2/23/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				57
Aromatic Surrogate % Recovery				99
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				110
Fractionation Surrogate % Recovery				94
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/24/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-114
Method for Target Analytes:		Lab ID		W0217-42
EPH Surrogate Standards		Date Collected		2/16/11
Aliphatic: Chlorooctadecane		Date Received		2/17/11
Aromatic: o-Terphenyl		Date Extracted		2/23/11
EPH Fractionation Surrogates		Date Analyzed		2/23/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				55
Aromatic Surrogate % Recovery				81
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				82
Fractionation Surrogate % Recovery				72
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/24/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-115
Method for Target Analytes:		Lab ID		W0217-42
EPH Surrogate Standards		Date Collected		2/15/11
Aliphatic: Chlorooctadecane		Date Received		2/17/11
Aromatic: o-Terphenyl		Date Extracted		2/23/11
EPH Fractionation Surrogates		Date Analyzed		2/23/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				54
Aromatic Surrogate % Recovery				73
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				81
Fractionation Surrogate % Recovery				69
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/24/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-218
Method for Target Analytes:		Lab ID		W0217-42
EPH Surrogate Standards		Date Collected		2/15/11
Aliphatic: Chlorooctadecane		Date Received		2/17/11
Aromatic: o-Terphenyl		Date Extracted		2/23/11
EPH Fractionation Surrogates		Date Analyzed		2/23/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				57
Aromatic Surrogate % Recovery				84
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				97
Fractionation Surrogate % Recovery				83
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/24/2011

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory _ Broken _ Leaking:
Aqueous Preservatives	_ N/A X pH<2 _ pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE-219
Method for Target Analytes	Lab ID	W0217-42
EPH Surrogate Standards Aliphatic: Chlorooctadecane Aromatic: o-Terphenyl	Date Collected	2/15/11
	Date Received	2/17/11
	Date Extracted	2/23/11
EPH Fractionation Surrogates 2-Fluorobiphenyl 2-Bromonaphthalene	Date Analyzed	2/23/11
	Dilution Factor	1X
	% Moisture (soil)	N/A

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				61
Aromatic Surrogate % Recovery				108
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				107
Fractionation Surrogate % Recovery				92
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/24/2011

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory _ Broken _ Leaking
Aqueous Preservatives	_ N/A X pH<2 _ pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE-220
Method for Target Analytes:	Lab ID	W0217-42
EPH Surrogate Standards Aliphatic: Chlorooctadecane Aromatic: o-Terphenyl	Date Collected	2/16/11
	Date Received	2/17/11
	Date Extracted	2/23/11
EPH Fractionation Surrogates 2-Fluorobiphenyl 2-Bromonaphthalene	Date Analyzed	2/23/11, 2/24/11
	Dilution Factor	1X
	% Moisture (soil)	N/A

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	207
Diesel PAH Analytes	Naphthalene	1.0	ug/L	48
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	159
Aliphatic Surrogate % Recovery				51
Aromatic Surrogate % Recovery				79
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				90
Fractionation Surrogate % Recovery				80
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

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SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/24/2011

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory _ Broken _ Leaking:
Aqueous Preservatives	_ N/A X pH<2 _ pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE-221
Method for Target Analytes	Lab ID	W0217-42
EPH Surrogate Standards Aliphatic: Chlorooctadecane Aromatic: o-Terphenyl	Date Collected	2/15/11
	Date Received	2/17/11
	Date Extracted	2/23/11
EPH Fractionation Surrogates 2-Fluorobiphenyl 2-Bromonaphthalene	Date Analyzed	2/23/11, 2/24/11
	Dilution Factor	1X
	% Moisture (soil)	N/A

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				53
Aromatic Surrogate % Recovery				76
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				103
Fractionation Surrogate % Recovery				81
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

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SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/24/2011

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory _ Broken _ Leaking:
Aqueous Preservatives	_ N/A X pH<2 _ pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1	Client ID	AE-222
Method for Target Analytes:	Lab ID	W0217-42
EPH Surrogate Standards Aliphatic: Chlorooctadecane Aromatic: o-Terphenyl	Date Collected	2/15/11
	Date Received	2/17/11
	Date Extracted	2/23/11
EPH Fractionation Surrogates 2-Fluorobiphenyl 2-Bromonaphthalene	Date Analyzed	2/23/11, 2/24/11
	Dilution Factor	1X
	% Moisture (soil)	N/A

RANGE/TARGET ANALYTE		RL	Units	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				56
Aromatic Surrogate % Recovery				102
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				107
Fractionation Surrogate % Recovery				87
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/24/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-223
Method for Target Analytes:		Lab ID		W0217-42
EPH Surrogate Standards		Date Collected		2/16/11
Aliphatic: Chlorooctadecane		Date Received		2/17/11
Aromatic: o-Terphenyl		Date Extracted		2/23/11
EPH Fractionation Surrogates		Date Analyzed		2/23/11, 2/24/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1 0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				46
Aromatic Surrogate % Recovery				80
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				98
Fractionation Surrogate % Recovery				81
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/24/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-224
Method for Target Analytes:		Lab ID		W0217-42
EPH Surrogate Standards		Date Collected		2/16/11
Aliphatic: Chlorooctadecane		Date Received		2/17/11
Aromatic: o-Terphenyl		Date Extracted		2/23/11
EPH Fractionation Surrogates		Date Analyzed		2/23/11, 2/24/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1 0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				42
Aromatic Surrogate % Recovery				67
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				85
Fractionation Surrogate % Recovery				77
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/24/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-225
Method for Target Analytes:		Lab ID		W0217-42
EPH Surrogate Standards		Date Collected		2/16/11
Aliphatic: Chlorooctadecane		Date Received		2/17/11
Aromatic: o-Terphenyl		Date Extracted		2/23/11
EPH Fractionation Surrogates		Date Analyzed		2/24/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1 0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				49
Aromatic Surrogate % Recovery				87
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				90
Fractionation Surrogate % Recovery				83
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/24/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH<2 pH>2 Comment.
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-226
Method for Target Analytes:		Lab ID		W0217-42
EPH Surrogate Standards		Date Collected		2/16/11
Aliphatic: Chlorooctadecane		Date Received		2/17/11
Aromatic: o-Terphenyl		Date Extracted		2/23/11
EPH Fractionation Surrogates		Date Analyzed		2/24/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	7.8
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1 0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5 0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				52
Aromatic Surrogate % Recovery				92
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				94
Fractionation Surrogate % Recovery				80
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director
PRINTED NAME: Richard Warila DATE: 2/24/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH≤2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-227
Method for Target Analytes:		Lab ID		W0217-42
EPH Surrogate Standards		Date Collected		2/15/11
Aliphatic: Chlorooctadecane		Date Received		2/17/11
Aromatic: o-Terphenyl		Date Extracted		2/23/11
EPH Fractionation Surrogates		Date Analyzed		2/24/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				48
Aromatic Surrogate % Recovery				61
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				74
Fractionation Surrogate % Recovery				69
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE:
POSITION: Laboratory Director
PRINTED NAME: Richard Warila
DATE: 2/24/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH≤2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-228
Method for Target Analytes:		Lab ID		W0217-42
EPH Surrogate Standards		Date Collected		2/15/11
Aliphatic: Chlorooctadecane		Date Received		2/17/11
Aromatic: o-Terphenyl		Date Extracted		2/23/11
EPH Fractionation Surrogates		Date Analyzed		2/24/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				50
Aromatic Surrogate % Recovery				81
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				94
Fractionation Surrogate % Recovery				81
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

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SIGNATURE:
POSITION: Laboratory Director
PRINTED NAME: Richard Warila
DATE: 2/24/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	X Satisfactory Broken Leaking:
Aqueous Preservatives	N/A X pH≤2 pH>2 Comment:
Temperature	X Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		AE-229
Method for Target Analytes:		Lab ID		W0217-42
EPH Surrogate Standards		Date Collected		2/15/11
Aliphatic: Chlorooctadecane		Date Received		2/17/11
Aromatic: o-Terphenyl		Date Extracted		2/23/11
EPH Fractionation Surrogates		Date Analyzed		2/24/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				47
Aromatic Surrogate % Recovery				69
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				73
Fractionation Surrogate % Recovery				67
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE:
POSITION: Laboratory Director
PRINTED NAME: Richard Warila
DATE: 2/24/2011

APPENDIX 3: REQUIRED EPH DATA REPORTING FORMAT/INFORMATION

SAMPLE INFORMATION

Matrix	X Aqueous Soil Sediment Other:
Containers	Satisfactory Broken Leaking:
Aqueous Preservatives	N/A pH≤2 pH>2 Comment:
Temperature	Received on Ice Received at 4 ° C Other:
Extraction Method	Water: Separatory Funnel Soil: N/A

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID		Method Blank
Method for Target Analytes:		Lab ID		W0217-42
EPH Surrogate Standards		Date Collected		NA
Aliphatic: Chlorooctadecane		Date Received		NA
Aromatic: o-Terphenyl		Date Extracted		2/23/11
EPH Fractionation Surrogates		Date Analyzed		2/23/11
2-Fluorobiphenyl		Dilution Factor		1X
2-Bromonaphthalene		% Moisture (soil)		N/A
RANGE/TARGET ANALYTE		**RL**	**Units**	
Unadjusted C11-C22 Aromatics[1]		150	ug/L	<150
Diesel PAH Analytes	Naphthalene	1.0	ug/L	<1.0
	2-Methylnaphthalene	1.0	ug/L	<1.0
	Phenanthrene	1.0	ug/L	<1.0
	Acenaphthylene	1.0	ug/L	<1.0
Other Target PAH Analytes	Acenaphthene	5.0	ug/L	<5.0
	Fluorene	5.0	ug/L	<5.0
	Anthracene	5.0	ug/L	<5.0
	Fluoranthene	5.0	ug/L	<5.0
	Pyrene	5.0	ug/L	<5.0
	Benzo(a)anthracene	1.0	ug/L	<1.0
	Chrysene	2.0	ug/L	<2.0
	Benzo(b)fluoranthene	1.0	ug/L	<1.0
	Benzo(k)fluoranthene	1.0	ug/L	<1.0
	Benzo(a)pyrene	0.2	ug/L	<0.2
	Indeno(1,2,3-cd)pyrene	0.5	ug/L	<0.5
	Dibenzo(a,h)anthracene	0.5	ug/L	<0.5
	Benzo(g,h,i)perylene	5.0	ug/L	<5.0
C9-C18 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C19-C36 Aliphatic Hydrocarbons[1]		200	ug/L	<200
C11-C22 Aromatic Hydrocarbons[1,2]		150	ug/L	<150
Aliphatic Surrogate % Recovery				48
Aromatic Surrogate % Recovery				89
Sample Surrogate Acceptance Range				40-140%
Fractionation Surrogate % Recovery				105
Fractionation Surrogate % Recovery				84
Fractionation Surrogate Acceptance Range				40-140%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the EPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE:
POSITION: Laboratory Director
PRINTED NAME: Richard Warila
DATE: 2/24/2011

```
           Spike Recovery and RPD Summary Report - WATER

Method        : C:\HPCHEM\1\METHODS\EPHALI1.M (Chemstation Integrator)
Title         :
Last Update   : Fri Jan 28 09:35:27 2011
Response via  : Initial Calibration

Non-Spiked Sample:  J022302.D

          Spike                                 Spike
          Sample                                Duplicate Sample
---------------------------------------------------------------------------
File ID :  J022303.D                           | J022304.D
Sample  :  LEW 2-23 HX                         | LEWD 2-23 HX
Acq Time:  23 Feb 2011   4:31 pm               | 23 Feb 2011   5:00 pm
---------------------------------------------------------------------------

Compound                 Sample Spike Spike  Dup  Spike  Dup   RPD    QC Limits
                          Conc  Added  Res   Res  %Rec  %Rec       RPD  % Rec
---------------------------------------------------------------------------
Nonane                  | 0.0 |  40 |  14 |  14 |  34 |  34 |  0 | 25 | 30-140|
Decane                  | 0.0 |  40 |  16 |  18 |  40 |  44 |  9 | 25 | 40-140|
Dodecane                | 0.0 |  40 |  20 |  23 |  45 |  51 | 13 | 25 | 40-140|
Tetradecane             | 0.0 |  40 |  21 |  25 |  50 |  58 | 15 | 25 | 40-140|
Hexadecane              | 0.0 |  40 |  23 |  28 |  57 |  68 | 18 | 25 | 40-140|
Dctadecane              | 0.0 |  40 |  25 |  30 |  60 |  74 | 21 | 25 | 40-140|
Nonadecane              | 0.0 |  40 |  24 |  29 |  60 |  73 | 20 | 25 | 40-140|
Eicosane                | 0.0 |  40 |  27 |  32 |  65 |  79 | 19 | 25 | 40-140|
Docosane                | 0.0 |  40 |  26 |  32 |  61 |  75 | 21 | 25 | 40-140|
Tetracosane             | 0.0 |  40 |  26 |  31 |  62 |  75 | 19 | 25 | 40-140|
Hexacosane              | 0.0 |  40 |  25 |  30 |  61 |  74 | 19 | 25 | 40-140|
Dctacosane              | 0.0 |  40 |  25 |  30 |  61 |  74 | 19 | 25 | 40-140|
Triacontane             | 0.0 |  40 |  25 |  30 |  61 |  75 | 20 | 25 | 40-140|
Hexatriacontane         | 0.0 |  40 |  23 |  29 |  54 |  68 | 23 | 25 | 40-140|
---------------------------------------------------------------------------

  # - Fails Limit Check


           EPHALI1.M      Thu Feb 24 08:53:51 2011
```

```
           Spike Recovery and RPD Summary Report - WATER

Method        : C:\HPCHEM\2\METHDDS\ARD1-25.M (Chemstation Integrator)
Title         :
Last Update   : Tue Feb 15 10:54:09 2011
Response via  : Initial Calibration

Non-Spiked Sample:  F022303.D

          Spike                                 Spike
          Sample                                Duplicate Sample
---------------------------------------------------------------------------
File ID :  F022304.D                           | F022305.D
Sample  :  LEW 2-23                            | LEWD 2-23
Acq Time:  23 Feb 2011   5:37 pm               | 23 Feb 2011   6:24 pm
---------------------------------------------------------------------------

Compound                 Sample Spike Spike  Dup  Spike  Dup   RPD    QC Limits
                          Conc  Added  Res   Res  %Rec  %Rec       RPD  % Rec
---------------------------------------------------------------------------
Naphthalene             | 0.0 |  40 |  30 |  29 |  75 |  73 |  3 | 25 | 40-140|
2 methyl naphthalene    | 0.0 |  40 |  29 |  31 |  73 |  77 |  5 | 25 | 40-140|
acenaphthylene          | 0.0 |  40 |  30 |  34 |  76 |  85 | 11 | 25 | 40-140|
Acenaphthene            | 0.0 |  40 |  33 |  38 |  83 |  94 | 13 | 25 | 40-140|
fluorene                | 0.0 |  40 |  32 |  36 |  80 |  90 | 12 | 25 | 40-140|
phenanthrene            | 0.0 |  40 |  38 |  44 |  95 | 109 | 14 | 25 | 40-140|
Anthracene              | 0.0 |  40 |  36 |  41 |  89 | 102 | 13 | 25 | 40-140|
Fluoranthene            | 0.0 |  40 |  40 |  45 |  99 | 113 | 13 | 25 | 40-140|
Pyrene                  | 0.0 |  40 |  37 |  43 |  94 | 108 | 14 | 25 | 40-140|
Benzo(a)anthracene      | 0.0 |  40 |  38 |  45 |  95 | 111 | 16 | 25 | 40-140|
Chrysene                | 0.0 |  40 |  35 |  40 |  87 | 100 | 14 | 25 | 40-140|
Benzo(b)fluoranthene    | 0.0 |  40 |  39 |  47 |  98 | 116 | 17 | 25 | 40-140|
Benzo(k)fluoranthene    | 0.0 |  40 |  39 |  43 |  97 | 109 | 12 | 25 | 40-140|
Benzo(a)pyrene          | 0.0 |  40 |  35 |  40 |  88 | 100 | 13 | 25 | 40-140|
Indeno(123cd)pyrene     | 0.0 |  40 |  22 |  28 |  56 |  71 | 24 | 25 | 40-140|
Dibenzo(ah)anthracen    | 0.0 |  40 |  32 |  33 |  79 |  82 |  3 | 25 | 40-140|
Benzo(ghi)perylene      | 0.0 |  40 |  35 |  42 |  89 | 105 | 17 | 25 | 40-140|
---------------------------------------------------------------------------

  # - Fails Limit Check


           ARD1-25.M      Thu Feb 24 09:00:28 2011
```

RESULTS: VOLATILE PETROLEUM HYDROCARBONS

Results for VPH analysis are presented in the following section. Each page is electronically signed.

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98			Client ID	AE-111A
Method for Target Analytes:			Lab ID	W0217-42
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene			Date Collected	2/15/11
			Date Received	2/17/11
			Date Analyzed	2/22/11
			Dilution Factor	1X
			% Moisture (soil)	NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				83
FID Surrogate % Recovery				80
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/24/2011

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98	Client ID	AE-112
Method for Target Analytes:	Lab ID	W0217-42
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene	Date Collected	2/15/11
	Date Received	2/17/11
	Date Analyzed	2/22/11
	Dilution Factor	1X
	% Moisture (soil)	NA

Range/Target Analyte	Elution Range	RL	Units	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	3100
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	1700
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	1400
PID Surrogate % Recovery				93
FID Surrogate % Recovery				104
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: ______ POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/24/2011

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98	Client ID	AE-113
Method for Target Analytes:	Lab ID	W0217-42
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene	Date Collected	2/16/11
	Date Received	2/17/11
	Date Analyzed	2/22/11
	Dilution Factor	1X
	% Moisture (soil)	NA

Range/Target Analyte	Elution Range	RL	Units	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	1600
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	910
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	590
PID Surrogate % Recovery				90
FID Surrogate % Recovery				92
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: ______ POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/24/2011

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98	Client ID	AE-114
Method for Target Analytes:	Lab ID	W0217-42
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene	Date Collected	2/16/11
	Date Received	2/17/11
	Date Analyzed	2/22/11
	Dilution Factor	1X
	% Moisture (soil)	NA

Range/Target Analyte	Elution Range	RL	Units	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	71.6
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	2200
Benzene	C5-C8	5.0	ug/L	10.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	61.6
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	1410
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	790
PID Surrogate % Recovery				85
FID Surrogate % Recovery				92
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: ______ POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/24/2011

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98	Client ID	AE-115
Method for Target Analytes:	Lab ID	W0217-42
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene	Date Collected	2/15/11
	Date Received	2/17/11
	Date Analyzed	2/22/11
	Dilution Factor	1X
	% Moisture (soil)	NA

Range/Target Analyte	Elution Range	RL	Units	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	1100
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	700
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	400
PID Surrogate % Recovery				92
FID Surrogate % Recovery				88
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: ______ POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/24/2011

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-218
Method for Target Analytes:		Lab ID		W0217-42
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene		Date Collected		2/15/11
		Date Received		2/17/11
		Date Analyzed		2/22/11
		Dilution Factor		1X
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				85
FID Surrogate % Recovery				75
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/24/2011

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A _ pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-219
Method for Target Analytes:		Lab ID		W0217-42
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene		Date Collected		2/15/11
		Date Received		2/17/11
		Date Analyzed		2/22/11
		Dilution Factor		1X
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	3200
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	1700
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	1500
PID Surrogate % Recovery				92
FID Surrogate % Recovery				98
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/24/2011

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-220
Method for Target Analytes:		Lab ID		W0217-42
VPH Surrogate Standards PID 2,5- Dibromotoluene FID 2,5- Dibromotoluene		Date Collected		2/15/11
		Date Received		2/17/11
		Date Analyzed		2/22/11
		Dilution Factor		1X, 10X
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	500	ug/L	11,000
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	130
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	500	ug/L	6300
C9-C10 Aromatic Hydrocarbons[1]	N/A	500	ug/L	4700
PID Surrogate % Recovery				89, 90
FID Surrogate % Recovery				93, 86
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/24/2011

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-221
Method for Target Analytes:		Lab ID		W0217-42
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene		Date Collected		2/15/11
		Date Received		2/17/11
		Date Analyzed		2/22/11
		Dilution Factor		1X
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				89
FID Surrogate % Recovery				75
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/24/2011

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-222
Method for Target Analytes:		Lab ID		W0217-42
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene		Date Collected		2/15/11
		Date Received		2/17/11
		Date Analyzed		2/22/11
		Dilution Factor		1X
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				80
FID Surrogate % Recovery				70
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/24/2011

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-223
Method for Target Analytes:		Lab ID		W0217-42
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene		Date Collected		2/16/11
		Date Received		2/17/11
		Date Analyzed		2/22/11
		Dilution Factor		1X
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				86
FID Surrogate % Recovery				73
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/24/2011

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-224
Method for Target Analytes:		Lab ID		W0217-42
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene		Date Collected		2/16/11
		Date Received		2/17/11
		Date Analyzed		2/22/11
		Dilution Factor		1X
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				87
FID Surrogate % Recovery				73
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/24/2011

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-225
Method for Target Analytes:		Lab ID		W0217-42
VPH Surrogate Standards PID: 2,5- Dibromotoluene FID: 2,5- Dibromotoluene		Date Collected		2/16/11
		Date Received		2/17/11
		Date Analyzed		2/22/11
		Dilution Factor		1X
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				87
FID Surrogate % Recovery				74
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/24/2011

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-226
Method for Target Analytes:		Lab ID		W0217-42
VPH Surrogate Standards		Date Collected		2/16/11
PID: 2,5- Dibromotoluene		Date Received		2/17/11
FID: 2,5- Dibromotoluene		Date Analyzed		2/22/11
		Dilution Factor		1X
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	3400
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	37.0
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	1500
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	1900
PID Surrogate % Recovery				90
FID Surrogate % Recovery				104
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/24/2011

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-227
Method for Target Analytes:		Lab ID		W0217-42
VPH Surrogate Standards		Date Collected		2/15/11
PID: 2,5- Dibromotoluene		Date Received		2/17/11
FID: 2,5- Dibromotoluene		Date Analyzed		2/22/11
		Dilution Factor		1X
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				89
FID Surrogate % Recovery				78
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/24/2011

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-228
Method for Target Analytes:		Lab ID		W0217-42
VPH Surrogate Standards		Date Collected		2/15/11
PID: 2,5- Dibromotoluene		Date Received		2/17/11
FID: 2,5- Dibromotoluene		Date Analyzed		2/22/11
		Dilution Factor		1X
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				92
FID Surrogate % Recovery				78
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/24/2011

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	X Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	X Received on Ice X Received at 4° C Other:		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH 01/98		Client ID		AE-229
Method for Target Analytes:		Lab ID		W0217-42
VPH Surrogate Standards		Date Collected		2/15/11
PID: 2,5- Dibromotoluene		Date Received		2/17/11
FID: 2,5- Dibromotoluene		Date Analyzed		2/22/11
		Dilution Factor		1X
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5.0	ug/L	<5.0
Ethylbenzene	C9-C12	5.0	ug/L	<5.0
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5.0	ug/L	<5.0
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				92
FID Surrogate % Recovery				82
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? X Yes _ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved? X Yes _ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3? X No _ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/24/2011

SAMPLE INFORMATION

Matrix	X Aqueous _ Soil _ Sediment _ Other:		
Containers	_ Satisfactory _ Broken _ Leaking:		
Sample Preservatives	Aqueous	_ N/A X pH≤2 _ pH>2 Comment:	
	Soil or Sediment	_ N/A _ Samples NOT preserved Methanol or air-tight container	mL Methanol/g soil
		_ Samples rec'd in Methanol: _ covering soil _ not covering soil	_ 1:1 +/- 25%
		_ Samples received in air-tight container:	_ Other:
Temperature	_ Received on Ice _ Received at 4° C _ Other:		

VPH ANALYTICAL RESULTS

Method for Ranges MADEP VPH 01/98		Client ID		Method Blank
Method for Target Analytes		Lab ID		W0217-42
VPH Surrogate Standards		Date Collected		NA
PID 2.5- Dibromotoluene		Date Received		NA
FID 2.5- Dibromotoluene		Date Analyzed		2/22/11
		Dilution Factor		1X
		% Moisture (soil)		NA
Range/Target Analyte	**Elution Range**	**RL**	**Units**	
Unadjusted C5-C8 Aliphatics[1]	N/A	50	ug/L	<50
Unadjusted C9-C12 Aliphatics[1]	N/A	50	ug/L	<50
Benzene	C5-C8	5	ug/L	<5
Ethylbenzene	C9-C12	5	ug/L	<5
Methyl-tert-butylether	C5-C8	10	ug/L	<10
Naphthalene	N/A	10	ug/L	<10
Toluene	C5-C8	5	ug/L	<5
m- & p- Xylenes	C9-C12	10	ug/L	<10
o-Xylene	C9-C12	10	ug/L	<10
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	50	ug/L	<50
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	ug/L	<50
C9-C10 Aromatic Hydrocarbons[1]	N/A	50	ug/L	<50
PID Surrogate % Recovery				84
FID Surrogate % Recovery				76
Surrogate Acceptance Range				70-130%

[1] Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed?	X Yes	_ No-Details Attached
Were all performance/acceptance standards for the required QA/QC procedures achieved?	X Yes	_ No-Details Attached
Were any significant modifications made to the VPH method, as specified in Section 11.3?	X No	_ Yes-Details Attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Laboratory Director

PRINTED NAME: Richard Warila DATE: 2/24/2011

```
                              SPIKE
        Spike Recovery and RPD Summary Report - WATER

Method        : C:\HPCHEM\2\METHODS\VPHQUANT.M (Chemstation Integrator)
Title         :
Last Update   : Wed Jan 19 08:29:42 2011
Response via  : Initial Calibration

Non-Spiked Sample:  D022205.D

             Spike                                Spike
             Sample                               Duplicate Sample
-----------------------------------------------------------------------
File ID :    D022202.D                           | D022203.D
Sample  :    LCS022211                           | LCSD022211
Acq Time:    22 Feb 2011   9:46 am               | 22 Feb 2011  10:27 am
-----------------------------------------------------------------------

Compound                 Sample Spike Spike  Dup  Spike  Dup   RPD    QC Limits
                          Conc  Added  Res   Res  %Rec  %Rec         RPD  % Rec
-----------------------------------------------------------------------
Pentane                 | 0.0 |  50 |  43 |  42 |  86 |  84 |  2 | 25 | 70-130|
2-Methyl pentane        | 0.0 |  50 |  47 |  46 |  95 |  91 |  4 | 25 | 70-130|
2,2,4-trimethylpenta| 0.0 |  50 |  47 |  47 |  94 |  94 |  0 | 25 | 70-130|
Nonane                  | 0.0 |  50 |  39 |  40 |  79 |  80 |  2 | 25 | 70-130|
n-decane                | 0.0 |  50 |  41 |  40 |  83 |  79 |  5 | 25 | 70-130|
n-butylcyclohexane      | 0.0 |  50 |  43 |  40 |  87 |  80 |  7 | 25 | 70-130|
MTBE #2                 | 0.0 |  50 |  46 |  48 |  93 |  95 |  2 | 25 | 70-130|
Benzene #2              | 0.0 |  50 |  57 |  56 | 113 | 111 |  2 | 25 | 70-130|
Toluene #2              | 0.0 |  50 |  40 |  40 |  81 |  81 |  0 | 25 | 70-130|
Ethylbenzene #2         | 0.0 |  50 |  45 |  44 |  90 |  88 |  2 | 25 | 70-130|
M&P Xylene #2           | 0.0 | 100 |  81 |  79 |  81 |  79 |  1 | 25 | 70-130|
O Xylene #2             | 0.0 |  50 |  46 |  44 |  93 |  89 |  4 | 25 | 70-130|
1,2,4-Trimethylbenze| 0.0 |  50 |  41 |  41 |  82 |  81 |  1 | 25 | 70-130|
Naphthlene              | 0.0 |  50 |  44 |  43 |  87 |  86 |  1 | 25 | 70-130|
-----------------------------------------------------------------------

  # - Fails Limit Check


          VPHQUANT.M     Thu Feb 24 10:28:00 2011
```

RESULTS: VOLATILE ORGANIC COMPOUNDS

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Organics Analysis Department certifies that the samples included in this section have been prepared and analyzed using the procedures cited and that the results have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42

Method: 8260

Matrix: (soil/water) WATER

Sample wt/vol: 5.0 (g/ml) ML

% Moisture

Soil Extract Volume: (uL)

Analyst's Initials:

Client Name: Action Environmental

Lab Sample ID: AE-111A

Lab File ID: C021808.D

Date Sampled: 2/15/2011

Date Analyzed: 2/18/2011

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	1.0	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental
Lab Sample ID: AE-111A
Lab File ID: C021808.D
Date Sampled: 2/15/2011
Date Analyzed: 2/18/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	p-Isopropyltoluene	1.0	U
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental
Lab Sample ID: AE-112
Lab File ID: C021809.D
Date Sampled: 2/15/2011
Date Analyzed: 2/18/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	1.0	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental
Lab Sample ID: AE-112
Lab File ID: C021809.D
Date Sampled: 2/15/2011
Date Analyzed: 2/18/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	13	
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	53	
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	14	
95-63-6	1,2,4-Trimethylbenzene	20	
135-98-8	sec-Butylbenzene	75	
99-87-6	p-Isopropyltoluene	11	
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	6.1	
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental
Lab Sample ID: AE-113
Lab File ID: C022209.D
Date Sampled: 2/16/2011
Date Analyzed: 2/22/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	1.0	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No. W0217-42
Method 8260
Matrix. (soil/water) WATER
Sample wt/vol. 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental
Lab Sample ID: AE-113
Lab File ID: C022209.D
Date Sampled: 2/16/2011
Date Analyzed: 2/22/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	O
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	18	
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	47	
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	13	
95-63-6	1,2,4-Trimethylbenzene	3.4	
135-98-8	sec-Butylbenzene	47	
99-87-6	p-Isopropyltoluene	1.0	U
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	9.6	
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental
Lab Sample ID: AE-114
Lab File ID: C021838.D
Date Sampled: 2/16/2011
Date Analyzed: 2/19/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	O
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	1.0	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	10	
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental
Lab Sample ID: AE-114
Lab File ID: C021838.D
Date Sampled: 2/16/2011
Date Analyzed: 2/19/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	O
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	7.2	
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	21	
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	8.4	
95-63-6	1,2,4-Trimethylbenzene	1.0	U
135-98-8	sec-Butylbenzene	76	
99-87-6	p-Isopropyltoluene	1.0	U
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	21	
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

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New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental
Lab Sample ID: AE-115
Lab File ID: C021810.D
Date Sampled: 2/15/2011
Date Analyzed: 2/18/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	1.0	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

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New England Testing Laboratory, Inc.

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VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental
Lab Sample ID: AE-115
Lab File ID: C021810.D
Date Sampled: 2/15/2011
Date Analyzed: 2/18/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	21	
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	51	
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	6.0	
95-63-6	1,2,4-Trimethylbenzene	16	
135-98-8	sec-Butylbenzene	35	
99-87-6	p-Isopropyltoluene	1.0	U
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	6.9	
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.4	
87-61-6	1,2,3-Trichlorobenzene	1.0	U

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New England Testing Laboratory, Inc.

NETLAB

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental
Lab Sample ID: AE-219
Lab File ID: C022210.D
Date Sampled: 2/15/2011
Date Analyzed: 2/22/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	1.0	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

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New England Testing Laboratory, Inc.

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VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental
Lab Sample ID: AE-219
Lab File ID: C022210.D
Date Sampled: 2/15/2011
Date Analyzed: 2/22/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	3.8	
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	23	
108-67-8	1,3,5-Trimethylbenzene	2.0	
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	4.5	
95-63-6	1,2,4-Trimethylbenzene	130	
135-98-8	sec-Butylbenzene	44	
99-87-6	p-Isopropyltoluene	100	
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	10.0	
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

NETLAB

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental
Lab Sample ID: AE-220
Lab File ID: C022213.D
Date Sampled: 2/16/2011
Date Analyzed: 2/22/2011
Dilution Factor: 1.0,10
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	1.0	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42
Method 8260
Matrix. (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials

Client Name: Action Environmental
Lab Sample ID: AE-220
Lab File ID: C022213.D
Date Sampled: 2/16/2011
Date Analyzed: 2/22/2011
Dilution Factor: 1.0,10
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	O
100-41-4	Ethylbenzene	9.5	
1330-20-7	m & p-Xylene	3.4	
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	60	
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	8.6	
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	180	
108-67-8	1,3,5-Trimethylbenzene	300	
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	12	
95-63-6	1,2,4-Trimethylbenzene	1700	
135-98-8	sec-Butylbenzene	82	
99-87-6	p-Isopropyltoluene	150	
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	84	
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	130	
87-61-6	1,2,3-Trichlorobenzene	1.0	U

U=not detected D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental
Lab Sample ID: AE-221
Lab File ID: C021837.D
Date Sampled: 2/15/2011
Date Analyzed: 2/19/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	O
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	1.0	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental
Lab Sample ID: AE-221
Lab File ID: C021837.D
Date Sampled: 2/15/2011
Date Analyzed: 2/19/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	O
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	p-Isopropyltoluene	1.0	U
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental
Lab Sample ID: AE-222
Lab File ID: C021820.D
Date Sampled: 2/15/2011
Date Analyzed: 2/18/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	O
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	1.0	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

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New England Testing Laboratory, Inc.

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VOLATILE ORGANICS ANALYSIS DATA SHEET

Cese No.: W0217-42
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental
Lab Sample ID: AE-222
Lab File ID: C021820.D
Date Sampled: 2/15/2011
Date Analyzed: 2/18/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	p-Isopropyltoluene	1.0	U
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

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New England Testing Laboratory, Inc.

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VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental
Lab Sample ID: AE-225
Lab File ID: C021823.D
Date Sampled: 2/16/2011
Date Analyzed: 2/18/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	1.0	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

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VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental
Lab Sample ID: AE-225
Lab File ID: C021823.D
Date Sampled: 2/16/2011
Date Analyzed: 2/18/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	p-Isopropyltoluene	1.0	U
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

NETLAB

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental
Lab Sample ID: AE-226
Lab File ID: C021839.D
Date Sampled: 2/16/2011
Date Analyzed: 2/19/2011
Dilution Factor: 1.0,10
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	1.0	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

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VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42		Client Name:	Action Environmental
Method: 8260		Lab Sample ID:	AE-226
Matrix: (soil/water) WATER		Lab File ID:	C021839.D
Sample wt/vol: 5.0	(g/ml) ML	Date Sampled:	2/16/2011
% Moisture		Date Analyzed:	2/19/2011
Soil Extract Volume:	(uL)	Dilution Factor:	1.0,10
Analyst's Initials:		Soil Aliquot Volume:	(uL)

CAS NO.	COMPOUND	UNITS: ug/L	O
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	9.1	
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	26	
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	4.5	
95-63-6	1,2,4-Trimethylbenzene	350	
135-98-8	sec-Butylbenzene	24	
99-87-6	p-Isopropyltoluene	35	
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	16	
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	37	
87-61-6	1,2,3-Trichlorobenzene	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

NETLAB

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42		Client Name:	Action Environmental
Method: 8260		Lab Sample ID:	AE-227
Matrix: (soil/water) WATER		Lab File ID:	C022208.D
Sample wt/vol: 5.0	(g/ml) ML	Date Sampled:	2/15/2011
% Moisture		Date Analyzed:	2/22/2011
Soil Extract Volume:	(uL)	Dilution Factor:	1.0
Analyst's Initials:		Soil Aliquot Volume:	(uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	1.0	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

NETLAB

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42		Client Name:	Action Environmental
Method: 8260		Lab Sample ID:	AE-227
Matrix: (soil/water) WATER		Lab File ID:	C022208.D
Sample wt/vol: 5.0	(g/ml) ML	Date Sampled:	2/15/2011
% Moisture		Date Analyzed:	2/22/2011
Soil Extract Volume:	(uL)	Dilution Factor:	1.0
Analyst's Initials:		Soil Aliquot Volume:	(uL)

CAS NO.	COMPOUND	UNITS: ug/L	O
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	p-Isopropyltoluene	1.0	U
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

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New England Testing Laboratory, Inc.

NETLAB

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42		Client Name:	Action Environmental
Method: 8260		Lab Sample ID:	VBLK021811
Matrix: (soil/water) WATER		Lab File ID:	C021806.D
Sample wt/vol: 5.0	(g/ml) ML	Date Sampled:	2/15/2011
% Moisture		Date Analyzed:	2/18/2011
Soil Extract Volume:	(uL)	Dilution Factor:	1.0
Analyst's Initials:		Soil Aliquot Volume:	(uL)

CAS NO.	COMPOUND	UNITS: ug/L	O
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	1.0	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

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New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental
Lab Sample ID: VBLK021811
Lab File ID: C021806.D
Date Sampled: 2/15/2011
Date Analyzed: 2/18/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	p-Isopropyltoluene	1.0	U
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

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New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental
Lab Sample ID: VBLK021811 2
Lab File ID: C021836.D
Date Sampled: 2/15/2011
Date Analyzed: 2/19/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	1.0	U
1634-04-4	tert-Butyl methyl ether	1.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

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New England Testing Laboratory, Inc.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: W0217-42
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Action Environmental
Lab Sample ID: VBLK021811 2
Lab File ID: C021836.D
Date Sampled: 2/15/2011
Date Analyzed: 2/19/2011
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	p-Isopropyltoluene	1.0	U
75-87-3	Chloromethane	1.0	U
75-65-0	tert butyl alcohol	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

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New England Testing Laboratory, Inc.

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: New England Testing laboratory Contract: 515 Somerville Av
Lab Code: RI010 Case No.: W0217-42 SAS No.: Action SDG No.: Action Env

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	LCS021811	102	98	98	0
02	LCSD021811	93	95	101	0
03	VBLK021811	92	91	109	0
04	AE-111A	90	93	111	0
05	AE-112	111	94	98	0
06	AE-115	98	95	95	0
07	AE-222	93	99	88	0
08	AE-225	95	106	95	0
09	VBLK021811 2	94	100	96	0
10	AE-221	96	97	97	0
11	AE-114	111	98	93	0
12	AE-228	102	99	94	0
13	LCS022211	92	105	100	0
14	LCSD022211	99	103	103	0
15	VBLK022211	96	99	97	0
16	AE-227	93	100	102	0
17	AE-113	94	99	98	0
18	AE-219	99	102	100	0
19	AE-220	109	99	97	0

			QC LIMITS
SMC1	=	4-Bromofluorobenzene	(70-130)
SMC2	=	Toluene-D8	(70-130)
SMC3	=	1,2-Dichloroethane-D4	(70-130)

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D System Monitoring Compound diluted out

New England Testing Laboratory, Inc

page 1 of 1

FORM II VOA-1

Volatile Organics LCS and LCSD Duplicate Results

LCS021811

Compound	LCS True Value	LCS Result	Recovery, %	LCSD True Value	LCSD Result	Recovery, %	Recovery QC Limits	Units	RPD, %	RPD Limits
Dichlorodifluoromethane	50	52.4	105	50	53.8	108	70-130%	ug/L	2.6	20.0
Chloromethane	50	47.0	94	50	48.5	97	70-130%	ug/L	3.0	20.0
Vinyl Chloride	50	50.8	102	50	51.7	103	70-130%	ug/L	1.8	20.0
Bromomethane	50	36.1	72	50	39.6	79	70-130%	ug/L	9.2	20.0
Chloroethane	50	52.3	105	50	51.1	102	70-130%	ug/L	2.4	20.0
Trichlorofluoromethane	50	48.8	98	50	48.1	96	70-130%	ug/L	1.4	20.0
1,1-Dichloroethene	50	54.9	110	50	50.6	101	70-130%	ug/L	8	20.0
Carbon Disulfide	50	53.1	106	50	50.1	100	70-130%	ug/L	5.7	20.0
Methylene Chloride	50	52.5	105	50	49.4	99	70-130%	ug/L	6.1	20.0
Acetone	50	35.5	71	50	35.1	70	70-130%	ug/L	1.1	20.0
Trans-1,2-dichloroethene	50	57.2	114	50	53.9	108	70-130%	ug/L	6.8	20.0
Tert-butyl Methyl Ether	50	53.3	107	50	51.1	102	70-130%	ug/L	4.2	20.0
Diisopropyl Ether	50	59.5	119	50	49.6	99	70-130%	ug/L	18.1	20.0
1,1-Dichloroethane	50	55.1	110	50	47.3	95	70-130%	ug/L	15.1	20.0
Ethyl Tery-butyl Ether	50	58.6	117	50	48.1	96	70-130%	ug/L	19.6	20.0
Cis-1,2-dichloroethene	50	58.5	117	50	48.6	97	70-130%	ug/L	18.5	20.0
2,2-Dichloropropane	50	60.0	120	50	51.6	103	70-130%	ug/L	15.1	20.0
Bromochloromethane	50	56.2	112	50	48.3	97	70-130%	ug/L	15.1	20.0
Chloroform	50	59.1	118	50	49.4	99	70-130%	ug/L	17.8	20.0
Carbon Tetrachloride	50	59.4	119	50	50.7	101	70-130%	ug/L	15.9	20.0
1,1,1-Trichloroethane	50	60.0	120	50	51.0	102	70-130%	ug/L	16.1	20.0
2-Butanone	50	44.2	88	50	37.6	75	70-130%	ug/L	16.1	20.0
1,1-Dichloropropene	50	52.3	105	50	47.1	94	70-130%	ug/L	10.4	20.0
Benzene	50	48.0	96	50	52.9	106	70-130%	ug/L	9.7	20.0
Tert-butyl Alcohol	50	51.3	103	50	44.8	90	70-130%	ug/L	13.7	20.0
Tert-amyl Methyl Ether	50	53.1	106	50	52.3	105	70-130%	ug/L	1.6	20.0
1,2-Dichloroethane	50	50.1	100	50	50.2	100	70-130%	ug/L	0.1	20.0
Trichloroethene	50	50.7	101	50	51.8	104	70-130%	ug/L	2.2	20.0
Dibromomethane	50	52.7	105	50	54.7	109	70-130%	ug/L	3.8	20.0
1,2-Dichloropropane	50	52.4	105	50	54.1	108	70-130%	ug/L	3.2	20.0
Bromodichloromethane	50	52.9	106	50	54.5	109	70-130%	ug/L	3.1	20.0
Cis-1,3-dichloropropene	50	55.9	112	50	54.8	110	70-130%	ug/L	2.1	20.0
2-CEVE	50	49.2	98	50	52.4	105	70-130%	ug/L	6.4	20.0
Toluene	50	50.9	102	50	49.2	98	70-130%	ug/L	3.4	20.0
4-Methyl-2-Pentanone	50	53.2	106	50	53.6	107	70-130%	ug/L	0.7	20.0
Tetrachloroethene	50	54.6	109	50	55.5	111	70-130%	ug/L	1.6	20.0
Trans-1,3-Dichloropropene	50	49.9	100	50	51.2	102	70-130%	ug/L	2.5	20.0
1,1,2-Trichloroethane	50	53.4	107	50	50.3	101	70-130%	ug/L	6.0	20.0
Dibromochloromethane	50	49.9	100	50	50.5	101	70-130%	ug/L	1.1	20.0
1,3-Dichloropropane	50	53.5	107	50	55.5	111	70-130%	ug/L	3.6	20.0
1,2-Dibromoethane	50	51.9	104	50	52.9	106	70-130%	ug/L	1.8	20.0
2-Hexanone	50	47.1	94	50	48.1	96	70-130%	ug/L	2.1	20.0
Chlorobenzene	50	52.6	105	50	52.8	106	70-130%	ug/L	0.4	20.0
Ethylbenzene	50	54.7	109	50	53.2	106	70-130%	ug/L	2.8	20.0
m,p-Xylene	100	113.5	114	100	111.3	111	70-130%	ug/L	2.0	20.0
1,1,1,2-Tetrachloroethane	50	54.3	109	50	53.6	107	70-130%	ug/L	1.3	20.0
o-Xylene	50	53.6	107	50	52.8	106	70-130%	ug/L	1.5	20.0
Styrene	50	52.3	105	50	49.4	99	70-130%	ug/L	5.8	20.0
Bromoform	50	49.2	98	50	47.7	95	70-130%	ug/L	2.9	20.0
Isopropylbenzene	50	52.3	105	50	49.2	98	70-130%	ug/L	6.2	20.0
Bromobenzene	50	54.9	110	50	49.0	98	70-130%	ug/L	11.4	20.0
n-Propylbenzene	50	51.8	104	50	50.9	102	70-130%	ug/L	1.8	20.0
1,1,2,2-Tetrachloroethene	50	59.4	119	50	54.9	110	70-130%	ug/L	7.9	20.0
2-Chlorotoluene	50	51.5	103	50	50.6	101	70-130%	ug/L	1.8	20.0
1,2,3-Trichloropropane	50	52.3	105	50	47.0	94	70-130%	ug/L	10.7	20.0
1,3,5-Trimethylbenzene	50	50.6	101	50	49.6	99	70-130%	ug/L	2.0	20.0
4-Chlorotoluene	50	54.0	108	50	52.1	104	70-130%	ug/L	3.5	20.0
Tert-butylbenzene	50	52.6	105	50	52.3	105	70-130%	ug/L	0.5	20.0
1,2,4-Trimethylbenzene	50	51.5	103	50	49.0	98	70-130%	ug/L	5.1	20.0
Sec-butylbenzene	50	54.0	108	50	50.6	101	70-130%	ug/L	6.5	20.0
p-Isopropyltoluene	50	48.1	96	50	50.8	102	70-130%	ug/L	5.4	20.0
1,3-Dichlorobenzene	50	52.6	105	50	52.0	104	70-130%	ug/L	1.1	20.0
1,4-Dichlorobenzene	50	52.3	105	50	52.7	105	70-130%	ug/L	0.9	20.0
n-Butyl Bezene	50	51.9	104	50	52.7	105	70-130%	ug/L	1.7	20.0
1,2-Dichlorbenzene	50	53.1	106	50	54.6	109	70-130%	ug/L	2.9	20.0
1,2-Dibromo-3-chloropr	50	53.7	107	50	51.3	103	70-130%	ug/L	4.5	20.0
Hexachlorobutadiene	50	53.7	107	50	52.7	105	70-130%	ug/L	1.9	20.0
1,2,4-Trichlorobenzene	50	57.1	114	50	56.2	112	70-130%	ug/L	1.7	20.0
Naphthalene	50	54.9	110	50	55.9	112	70-130%	ug/L	1.9	20.0
1,2,3-Trichlorobenzene	50	55.1	110	50	55.3	111	70-130%	ug/L	0.4	20.0

Volatile Organics LCS and LCSD Duplicate Results

LCS022211

Compound	LCS True Value	LCS Result	Recovery, %	LCSD True Value	LCSD Result	Recovery, %	Recovery QC Limits	Units	RPD, %	RPD Limits
Dichlorodifluoromethane	50	49.7	99	50	51.9	104	70-130%	ug/L	4.3	20.0
Chloromethane	50	43.8	88	50	45.6	91	70-130%	ug/L	4.1	20.0
Vinyl Chloride	50	47.1	94	50	49.9	100	70-130%	ug/L	5.7	20.0
Bromomethane	50	36.5	73	50	37.2	74	70-130%	ug/L	1.9	20.0
Chloroethane	50	44.2	88	50	42.3	85	70-130%	ug/L	4.4	20.0
1,1-Dichloroethene	50	44.1	88	50	43.9	88	70-130%	ug/L	0	20.0
Carbon Disulfide	50	44.8	90	50	45.5	91	70-130%	ug/L	1.5	20.0
Methylene Chloride	50	40.4	81	50	43.1	86	70-130%	ug/L	6.4	20.0
Acetone	50	47.0	94	50	41.9	84	70-130%	ug/L	11.4	20.0
Trans-1,2-dichloroethene	50	45.0	90	50	47.3	95	70-130%	ug/L	4.9	20.0
Tert-butyl Methyl Ether	50	45.8	92	50	47.8	96	70-130%	ug/L	4.4	20.0
Diisopropyl Ether	50	49.3	99	50	51.6	103	70-130%	ug/L	4.6	20.0
1,1-Dichloroethane	50	47.0	94	50	49.5	99	70-130%	ug/L	5.1	20.0
Ethyl Tery-butyl Ether	50	51.4	103	50	53.3	107	70-130%	ug/L	3.7	20.0
Cis-1,2-dichloroethene	50	48.6	97	50	52.3	105	70-130%	ug/L	7.2	20.0
2,2-Dichloropropane	50	51.9	104	50	52.7	105	70-130%	ug/L	1.4	20.0
Bromochloromethane	50	48.2	96	50	49.7	99	70-130%	ug/L	3.1	20.0
Chloroform	50	46.6	93	50	48.9	98	70-130%	ug/L	4.7	20.0
Carbon Tetrachloride	50	46.5	93	50	49.1	98	70-130%	ug/L	5.4	20.0
1,1,1-Trichloroethane	50	47.0	94	50	48.3	97	70-130%	ug/L	2.7	20.0
2-Butanone	50	52.8	106	50	44.3	89	70-130%	ug/L	17.4	20.0
1,1-Dichloropropene	50	51.9	104	50	43.2	86	70-130%	ug/L	18.4	20.0
Benzene	50	57.8	116	50	60.1	120	70-130%	ug/L	4.8	20.0
Tert-butyl Alcohol	50	47.5	95	50	55.6	111	70-130%	ug/L	15.7	20.0
Tert-amyl Methyl Ether	50	59.5	119	50	62.0	124	70-130%	ug/L	4.2	20.0
1,2-Dichloroethane	50	47.9	96	50	48.6	97	70-130%	ug/L	1.3	20.0
Trichloroethene	50	53.4	107	50	54.9	110	70-130%	ug/L	2.9	20.0
Dibromomethane	50	53.2	106	50	54.6	109	70-130%	ug/L	2.6	20.0
1,2-Dichloropropane	50	58.3	117	50	60.5	121	70-130%	ug/L	3.6	20.0
Bromodichloromethane	50	53.2	106	50	55.9	112	70-130%	ug/L	4.9	20.0
Cis-1,3-dichloropropene	50	59.7	119	50	62.9	126	70-130%	ug/L	5.3	20.0
2-CEVE	50	56.0	112	50	62.3	125	70-130%	ug/L	10.8	20.0
Toluene	50	55.8	112	50	57.7	115	70-130%	ug/L	3.4	20.0
4-Methyl-2-Pentanone	50	53.2	106	50	58.6	117	70-130%	ug/L	9.6	20.0
Tetrachloroethene	50	57.5	115	50	60.2	120	70-130%	ug/L	4.7	20.0
Trans-1,3-Dichloropropene	50	52.9	106	50	52.6	105	70-130%	ug/L	0.5	20.0
1,1,2-Trichloroethane	50	55.9	112	50	59.6	119	70-130%	ug/L	6.4	20.0
Dibromochloromethane	50	51.3	103	50	52.7	105	70-130%	ug/L	2.8	20.0
1,3-Dichloropropane	50	57.4	115	50	60.4	121	70-130%	ug/L	5.8	20.0
1,2-Dibromoethane	50	54.5	109	50	56.8	114	70-130%	ug/L	4.2	20.0
2-Hexanone	50	57.8	116	50	55.6	111	70-130%	ug/L	3.8	20.0
Chlorobenzene	50	53.4	107	50	53.2	106	70-130%	ug/L	0.4	20.0
Ethylbenzene	50	55.0	110	50	54.1	108	70-130%	ug/L	1.6	20.0
m,p-Xylene	100	117.1	117	100	110.8	111	70-130%	ug/L	5.5	20.0
1,1,1,2-Tetrachloroethane	50	52.0	104	50	51.3	103	70-130%	ug/L	1.4	20.0
o-Xylene	50	57.0	114	50	53.8	108	70-130%	ug/L	5.8	20.0
Styrene	50	53.0	106	50	52.9	106	70-130%	ug/L	0.2	20.0
Bromoform	50	48.0	96	50	48.4	97	70-130%	ug/L	0.8	20.0
Isopropylbenzene	50	52.2	104	50	50.4	101	70-130%	ug/L	3.5	20.0
Bromobenzene	50	52.1	104	50	53.9	108	70-130%	ug/L	3.5	20.0
n-Propylbenzene	50	51.7	103	50	50.7	101	70-130%	ug/L	1.9	20.0
1,1,2,2-Tetrachloroethene	50	56.0	112	50	58.1	116	70-130%	ug/L	3.8	20.0
2-Chlorotoluene	50	51.4	103	50	51.0	102	70-130%	ug/L	0.8	20.0
1,2,3-Trichloropropane	50	48.6	97	50	46.7	93	70-130%	ug/L	4.1	20.0
1,3,5-Trimethylbenzene	50	51.5	103	50	49.2	98	70-130%	ug/L	4.6	20.0
4-Chlorotoluene	50	52.8	106	50	51.3	103	70-130%	ug/L	2.8	20.0
Tert-butylbenzene	50	52.3	105	50	52.9	106	70-130%	ug/L	1.1	20.0
1,2,4-Trimethylbenzene	50	51.4	103	50	50.1	100	70-130%	ug/L	2.6	20.0
Sec-butylbenzene	50	54.5	109	50	53.8	108	70-130%	ug/L	1.3	20.0
p-Isopropyltoluene	50	53.3	107	50	52.0	104	70-130%	ug/L	2.4	20.0
1,3-Dichlorobenzene	50	53.9	108	50	52.6	105	70-130%	ug/L	2.4	20.0
1,4-Dichlorobenzene	50	51.0	102	50	52.9	106	70-130%	ug/L	3.6	20.0
n-Butyl Bezene	50	50.1	100	50	51.4	103	70-130%	ug/L	2.6	20.0
1,2-Dichlorbenzene	50	51.6	103	50	52.8	106	70-130%	ug/L	2.3	20.0
1,2-Dibromo-3-chloropr	50	47.4	95	50	50.9	102	70-130%	ug/L	7.1	20.0
Hexachlorobutadiene	50	50.8	102	50	48.4	97	70-130%	ug/L	4.8	20.0
1,2,4-Trichlorobenzene	50	54.2	108	50	54.6	109	70-130%	ug/L	0.7	20.0
Naphthalene	50	56.9	114	50	53.9	108	70-130%	ug/L	5.6	20.0
1,2,3-Trichlorobenzene	50	52.2	104	50	52.4	105	70-130%	ug/L	0.3	20.0

NEW ENGLAND TESTING LABORATORY, INC
1254 Douglas Avenue
North Providence, RI 02904
1-888-863-8522

Page 1 of 2

CHAIN OF CUSTODY RECORD

W0217-42

PROJ. NO: 3120
PROJECT NAME/LOCATION: 515 Somerville Ave Somerville, MA
CLIENT: Action Environmental
REPORT TO: Robert Houghton/Glenn Carlson
INVOICE TO: Andrew Clemens

DATE	TIME	COMP	GRAB	SAMPLE I.D.	AQUEOUS	SOIL	OTHER	NO. OF CONTAINERS	PRESERVATIVE	VOCs by 8260	VPH	EPH	REMARKS
2/15/11	3:00		X	AE-111A	X			4	HCl	X	X	X	
2/15/11	3:30		X	AE-112	X			4		X	X	X	
2/16/11	11:30		X	AE-113	X			4		X	X	X	
2/16/11	11:00		X	AE-114	X			4		X	X	X	
2/15/11	12:55		X	AE-115	X			4		X	X	X	
2/15/11	11:15		X	AE-218	X			4		X	X	X	
2/16/11	11:45		X	AE-219	X			4		X	X	X	
2/16/11	2:00		X	AE-220	X			4		X	X	X	
2/15/11	1:00		X	AE-221	X			4		X	X	X	
2/15/11	3:50		X	AE-222	X			4		X	X	X	
2/16/11	12:00		X	AE-223	X			3			X	X	
2/16/11	12:40		X	AE-224	X			3			X	X	
2/16/11	1:00		X	AE-225	X			4		X	X	X	
2/16/11	1:30		X	AE-226	X			4		X	X	X	

Sampled by (Signature): Holly Sandtrup   Date/Time: 4:30 2/16/11
Received by (Signature):   Date/Time:
Relinquished by (Signature):   Date/Time: 2/17/11 9:15
Received by (Signature): Robert Lee   Date/Time: 2/17/11 9.15
Relinquished by (Signature): Robert Lee   Date/Time: 2/17/11 5:00
Received for Laboratory by (Signature):   Date/Time: 2/17/11 17:00
Laboratory Remarks: 5°
Temp. received
Cooled ✓
Special Instructions
List Specific Detection
Limit Requirements
MCP GW-2-3
Turnaround (Business Days): 5 bus days

**Netlab Subcontracts the following tests: Radiologicals, Radon, Asbestos, UCMRs, Perchlorate, Bromate, Bromide, Sieve, Salmonella, Carbamates

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NEW ENGLAND TESTING LABORATORY, INC
1254 Douglas Avenue
North Providence, RI 02904
1-888-863-8522

Page 2 of 2

CHAIN OF CUSTODY RECORD

42
W0217-41 on

PROJ. NO: 3120
PROJECT NAME/LOCATION: 3120 Som'l Ave Som'l
CLIENT: Action Environmental
REPORT TO:
INVOICE TO:

DATE	TIME	COMP	GRAB	SAMPLE I.D.	AQUEOUS	SOIL	OTHER	NO. OF CONTAINERS	PRESERVATIVE	VOCs by 8260	VPH	EPH	REMARKS
2/16/11	1:25		X	AE-227	X			4	HCl	X	X	X	
2/15/11	2:35		X	AE-228	X			3	HCl		X	X	
2/16/11	2:00		X	AE-229	X			3	HCl		X	X	

Sampled by (Signature): H Sandtrup   Date/Time: 4:30 2/16/11
Received by (Signature):   Date/Time:
Relinquished by (Signature): H Sandtrup   Date/Time: 2/17/11 9:15
Received by (Signature): Robert Lee   Date/Time: 2/17/11 9.15
Relinquished by (Signature): Robert Lee   Date/Time: 2/17/11 5:00
Received for Laboratory by (Signature):   Date/Time:
Laboratory Remarks
Temp. received
Cooled ?
Special Instructions
List Specific Detection
Limit Requirements
Page 2 of 2
Turnaround (Business Days)

**Netlab Subcontracts the following tests: Radiologicals, Radon, Asbestos, UCMRs, Perchlorate, Bromate, Bromide, Sieve, Salmonella, Carbamates

June 17, 2011

Robert Houghton
Clean Properties
111 Boston Post Road, Suite 211
Sudbury, MA 01776

Project Location: 515 Somerville Ave., Somerville, MA
Client Job Number:
Project Number: [none]
Laboratory Work Order Number: 11F0405

Enclosed are results of analyses for samples received by the laboratory on June 10, 2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

James M. Georgantas
Project Manager

Clean Properties
111 Boston Post Road, Suite 211
Sudbury, MA 01776
ATTN Robert Houghton

REPORT DATE 6/17/2011

PURCHASE ORDER NUMBER

PROJECT NUMBER [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER 11F0405

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION 515 Somerville Ave , Somerville, MA

FIELD SAMPLE #	LAB ID	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
AE220	11F0405-01	Ground Water		MADEP-EPH-04-1.1 MADEP-VPH-04-1.1	

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

MADEP-EPH-04-1.1

SPE cartridge contamination with non-petroleum compounds, if present, is verified by GC/MS in each method blank per extraction batch and excluded from C11-C22 aromatic range fraction in all samples in the batch. No significant modifications were made to the method.

MADEP-VPH-04-1.1

No significant modifications were made to the method. All VPH samples were received preserved properly at pH <2 in the proper containers as specified on the chain-of-custody form unless specified in this narrative.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Daren J. Damboragian
Laboratory Manager

Project Location: 515 Somerville Ave., Somerville, Sample Description: Work Order: 11F0405
Date Received: 6/10/2011
Field Sample #: AE220 Sampled: 6/9/2011 17:10
Sample ID: 11F0405-01
Sample Matrix Ground Water

Petroleum Hydrocarbons Analyses - EPH

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	ND	100	µg/L	1		MADEP-EPH-04-1.1	6/13/11	6/15/11 4:32	CJM
C19-C36 Aliphatics	ND	100	µg/L	1		MADEP-EPH-04-1.1	6/13/11	6/15/11 4:32	CJM
Unadjusted C11-C22 Aromatics	ND	100	µg/L	1		MADEP-EPH-04-1.1	6/13/11	6/15/11 4:32	CJM
C11-C22 Aromatics	ND	100	µg/L	1		MADEP-EPH-04-1.1	6/13/11	6/15/11 4:32	CJM
Acenaphthene	ND	2.0	µg/L	1		MADEP-EPH-04-1.1	6/13/11	6/15/11 4:32	CJM
Acenaphthylene	ND	2.0	µg/L	1		MADEP-EPH-04-1.1	6/13/11	6/15/11 4:32	CJM
Anthracene	ND	2.0	µg/L	1		MADEP-EPH-04-1.1	6/13/11	6/15/11 4:32	CJM
Benzo(a)anthracene	ND	2.0	µg/L	1		MADEP-EPH-04-1.1	6/13/11	6/15/11 4:32	CJM
Benzo(a)pyrene	ND	2.0	µg/L	1		MADEP-EPH-04-1.1	6/13/11	6/15/11 4:32	CJM
Benzo(b)fluoranthene	ND	2.0	µg/L	1		MADEP-EPH-04-1.1	6/13/11	6/15/11 4:32	CJM
Benzo(g,h,i)perylene	ND	2.0	µg/L	1		MADEP-EPH-04-1.1	6/13/11	6/15/11 4:32	CJM
Benzo(k)fluoranthene	ND	2.0	µg/L	1		MADEP-EPH-04-1.1	6/13/11	6/15/11 4:32	CJM
Chrysene	ND	2.0	µg/L	1		MADEP-EPH-04-1.1	6/13/11	6/15/11 4:32	CJM
Dibenz(a,h)anthracene	ND	2.0	µg/L	1		MADEP-EPH-04-1.1	6/13/11	6/15/11 4:32	CJM
Fluoranthene	ND	2.0	µg/L	1		MADEP-EPH-04-1.1	6/13/11	6/15/11 4:32	CJM
Fluorene	ND	2.0	µg/L	1		MADEP-EPH-04-1.1	6/13/11	6/15/11 4:32	CJM
Indeno(1,2,3-cd)pyrene	ND	2.0	µg/L	1		MADEP-EPH-04-1.1	6/13/11	6/15/11 4:32	CJM
2-Methylnaphthalene	ND	2.0	µg/L	1		MADEP-EPH-04-1.1	6/13/11	6/15/11 4:32	CJM
Naphthalene	ND	2.0	µg/L	1		MADEP-EPH-04-1.1	6/13/11	6/15/11 4:32	CJM
Phenanthrene	ND	2.0	µg/L	1		MADEP-EPH-04-1.1	6/13/11	6/15/11 4:32	CJM
Pyrene	ND	2.0	µg/L	1		MADEP-EPH-04-1.1	6/13/11	6/15/11 4:32	CJM

Surrogates	% Recovery	Recovery Limits	Flag	Date/Time Analyzed
Chlorooctadecane (COD)	83.7	40-140		6/15/11 4:32
o-Terphenyl (OTP)	97.3	40-140		6/15/11 4:32
2-Bromonaphthalene	123	40-140		6/15/11 4:32
2-Fluorobiphenyl	123	40-140		6/15/11 4:32

Project Location: [illegible] Somerville Ave, Somerville Sample Description: Work Order: 11F0405
Date Received: [illegible]
Field Sample #: AE220 Sampled: 6/9/20[illegible] 17:10
Sample ID: 11F0405-01
Sample Matrix: Ground Water

Petroleum Hydrocarbon Analyses - VPH

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	6/15/11	6/15/11 23:29	EEH
C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	6/15/11	6/15/11 23:29	EEH
Unadjusted C9-C12 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	6/15/11	6/15/11 23:29	EEH
C9-C12 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	6/15/11	6/15/11 23:29	EEH
C9-C10 Aromatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	6/15/11	6/15/11 23:29	EEH
Benzene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	6/15/11	6/15/11 23:29	EEH
Ethylbenzene	ND	[illegible]	µg/L	1		MADEP-VPH-04-1.1	6/15/11	6/15/11 23:29	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	6/15/11	6/15/11 23:29	EEH
Naphthalene	ND	5.0	µg/L	1		MADEP-VPH-04-1.1	6/15/11	6/15/11 23:29	EEH
Toluene	ND	[illegible]	µg/L	1		MADEP-VPH-04-1.1	6/15/11	6/15/11 23:29	EEH
m+p Xylene	ND	2.0	µg/L	1		MADEP-VPH-04-1.1	6/15/11	6/15/11 23:29	EEH
o-Xylene	ND	[illegible]	µg/L	1		MADEP-VPH-04-1.1	6/15/11	6/15/11 23:29	EEH

Surrogates	% Recovery	Recovery Limits	Flag	
2,5-Dibromotoluene (FID)	93.8	70-130		6/15/11 23:29
2,5-Dibromotoluene (PID)	81.7	70-130		6/15/11 23:29

Sample Extraction Data

Prep Method: SW-846 3510C-MADEP-EPH-04-1.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
11F0405-01 [AE220]	B031927	1000	2.00	06/13/11

Prep Method: MA VPH-MADEP-VPH-04-1.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
11F0405-01 [AE220]	B032048	5	5.00	06/15/11

QUALITY CONTROL

Petroleum Hydrocarbon Analyses - EPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B031927 - SW-846 3510C										
Blank (B031927-BLK1)				Prepared: 06/13/11 Analyzed: 06/14/11						
C9-C18 Aliphatics	ND	100	µg/L							
C19-C36 Aliphatics	ND	100	µg/L							
Unadjusted C11-C22 Aromatics	ND	100	µg/L							
C11-C22 Aromatics	ND	100	µg/L							
Acenaphthene	ND	2.0	µg/L							
Acenaphthylene	ND	2.0	µg/L							
Anthracene	ND	2.0	µg/L							
Benzo(a)anthracene	ND	2.0	µg/L							
Benzo(a)pyrene	ND	2.0	µg/L							
Benzo(b)fluoranthene	ND	2.0	µg/L							
Benzo(g,h,i)perylene	ND	2.0	µg/L							
Benzo(k)fluoranthene	ND	2.0	µg/L							
Chrysene	ND	2.0	µg/L							
Dibenz(a,h)anthracene	ND	2.0	µg/L							
Fluoranthene	ND	2.0	µg/L							
Fluorene	ND	2.0	µg/L							
Indeno(1,2,3-cd)pyrene	ND	2.0	µg/L							
2-Methylnaphthalene	ND	2.0	µg/L							
Naphthalene	ND	2.0	µg/L							
Phenanthrene	ND	2.0	µg/L							
Pyrene	ND	2.0	µg/L							
Surrogate: Chlorooctadecane (COD)	[illegible]		µg/L	[illegible]		[illegible]	40-140			
Surrogate: o-Terphenyl (OTP)	104		µg/L	[illegible]		104	40-140			
Surrogate: 2-Bromonaphthalene	79		µg/L	100		79	40-140			
Surrogate: 2-Fluorobiphenyl	[illegible]		µg/L	100		[illegible]	40-140			
LCS (B031927-BS1)				Prepared: 06/1[illegible] Analyzed: 06/[illegible]						
Acenaphthene	101	2.0	µg/L	[illegible]		101	40-140			
Acenaphthylene	101	2.0	µg/L	100		101	40-140			
Anthracene	107	2.0	µg/L	[illegible]		107	40-140			
Benzo(a)anthracene	120	2.0	µg/L	100		120	40-140			
Benzo(a)pyrene	108	2.0	µg/L	[illegible]		108	40-140			
Benzo(b)fluoranthene	[illegible]	2.0	µg/L	100		[illegible]	40-140			
Benzo(g,h,i)perylene	[illegible]	2.0	µg/L	[illegible]		[illegible]	40-140			
Benzo(k)fluoranthene	[illegible]	2.0	µg/L	100		[illegible]	40-140			
Chrysene	[illegible]	2.0	µg/L	[illegible]		[illegible]	40-140			
Dibenz(a,h)anthracene	[illegible]	2.0	µg/L	[illegible]		[illegible]	40-140			
Fluoranthene	107	2.0	µg/L	[illegible]		107	40-140			
Fluorene	104	2.0	µg/L	[illegible]		104	40-140			
Indeno(1,2,3-cd)pyrene	110	2.0	µg/L	100		110	40-140			
2-Methylnaphthalene	[illegible]	2.0	µg/L	100		[illegible]	40-140			
Naphthalene	[illegible]	2.0	µg/L	100		[illegible]	40-140			
Phenanthrene	105	2.0	µg/L	100		[illegible]	40-140			
Pyrene	[illegible]	2.0	µg/L	100		[illegible]	40-140			
n-Decane	[illegible]	2.0	µg/L	100		[illegible]	40-140			
n-Docosane	[illegible]	2.0	µg/L	100		104	40-140			
n-Dodecane	[illegible]	2.0	µg/L	[illegible]		[illegible]	40-140			
n-Eicosane	[illegible]	2.0	µg/L	[illegible]		[illegible]	40-140			
n-Hexacosane	[illegible]	2.0	µg/L	100		[illegible]	40-140			
n-Hexadecane	[illegible]	2.0	µg/L	[illegible]		[illegible]	40-140			
n-Heptacosane	[illegible]	2.0	µg/L	[illegible]		[illegible]	40-140			
n-Nonadecane	[illegible]	2.0	µg/L	[illegible]		[illegible]	40-140			

QUALITY CONTROL

Petroleum Hydrocarbon Analyses - EPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B031927 - SW-846 3510C										
LCS (B031927-BS1)				Prepared: 06/13/11 Analyzed: 06/14/11						
n-Nonane	57.0	2.0	µg/L	100		57.0	30-140			
n-Octacosane	99.7	2.0	µg/L	100		99.7	40-140			
n-Octadecane	97.2	2.0	µg/L	100		97.2	40-140			
n-Tetracosane	102	2.0	µg/L	100		102	40-140			
n-Tetradecane	86.2	2.0	µg/L	100		86.2	40-140			
n-Triacontane	103	2.0	µg/L	100		103	40-140			
Naphthalene-aliphatic fraction	ND	2.0	µg/L	100			0-5			
2-Methylnaphthalene-aliphatic fraction	ND	2.0	µg/L	100			0-5			
Surrogate: Chlorooctadecane (COD)	*83.2*		µg/L	100		83.2	40-140			
Surrogate: o-Terphenyl (OTP)	*105*		µg/L	100		105	40-140			
Surrogate: 2-Bromonaphthalene	*118*		µg/L	100		118	40-140			
Surrogate: 2-Fluorobiphenyl	*118*		µg/L	100		118	40-140			
LCS Dup (B031927-BSD1)				Prepared: 06/13/11 Analyzed: 06/[illegible]4/11						
Acenaphthene	92.0	2.0	µg/L	100		92.0	40-140	8.90	25	
Acenaphthylene	92.5	2.0	µg/L	100		92.5	40-140	8.92	25	
Anthracene	98.1	2.0	µg/L	100		98.1	40-140	8.20	25	
Benzo(a)anthracene	118	2.0	µg/L	100		118	40-140	6.79	25	
Benzo(a)pyrene	100	2.0	µg/L	100		100	40-140	7.48	25	
Benzo(b)fluoranthene	107	2.0	µg/L	100		107	40-140	7.34	25	
Benzo(g,h,i)perylene	103	2.0	µg/L	100		103	40-140	7.94	25	
Benzo(k)fluoranthene	106	2.0	µg/L	100		106	40-140	7.29	25	
Chrysene	104	2.0	µg/L	100		104	40-140	6.90	25	
Dibenz(a,h)anthracene	105	2.0	µg/L	100		105	40-140	7.46	25	
Fluoranthene	100	2.0	µg/L	100		100	40-140	[illegible]	25	
Fluorene	94.9	2.0	µg/L	100		94.9	40-140	6.71	[illegible]	
Indeno(1,2,3-cd)pyrene	101	2.0	µg/L	100		101	40-140	7.90	25	
2-Methylnaphthalene	90.7	2.0	µg/L	100		90.7	40-140	9.11	25	
Naphthalene	82.6	2.0	µg/L	100		[illegible]	40-140	9.17	25	
Phenanthrene	96.5	2.0	µg/L	100		96.5	40-140	8.34	25	
Pyrene	101	2.0	µg/L	100		101	40-140	6.84	[illegible]	
n-Decane	69.1	2.0	µg/L	100		69.1	40-140	2.09	[illegible]	
n-Docosane	104	2.0	µg/L	100		104	40-140	0.0536	[illegible]	
n-Dodecane	79.0	2.0	µg/L	100		79.0	40-140	2.41	[illegible]	
n-Eicosane	[illegible]	2.0	µg/L	100		98.1	40-140	0.649	[illegible]	
n-Hexacosane	102	2.0	µg/L	100		102	40-140	0.0690	[illegible]	
n-Hexadecane	[illegible]	2.0	µg/L	[illegible]		[illegible]	40-140	2.39	25	
n-Heptacosane	105	2.0	µg/L	100		105	40-140	[illegible]	[illegible]	
n-Nonadecane	97.0	2.0	µg/L	100		97.0	40-140	[illegible]	[illegible]	
n-Nonane	55.8	2.0	µg/L	100		[illegible]	30-140	2.02	[illegible]	
n-Octacosane	99.7	2.0	µg/L	100		99.7	40-140	[illegible]	[illegible]	
n-Octadecane	95.6	2.0	µg/L	100		95.6	40-140	[illegible]	[illegible]	
n-Tetracosane	102	2.0	µg/L	[illegible]		102	40-140	[illegible]	[illegible]	
n-Tetradecane	86.2	2.0	µg/L	100		86.2	40-140	2.37	[illegible]	
n-Triacontane	103	2.0	µg/L	[illegible]		103	40-140	0.0795	[illegible]	
Naphthalene-aliphatic fraction	ND	2.0	µg/L	100			0-5			
2-Methylnaphthalene-aliphatic fraction	[illegible]	2.0	µg/L	[illegible]		[illegible]	0-5			
Surrogate: Chlorooctadecane (COD)	*86.0*		µg/L	100		86.0	40-140			
Surrogate: o-Terphenyl (OTP)	[illegible]		µg/L	[illegible]		95.8	40-140			
Surrogate: 2-Bromonaphthalene	[illegible]		µg/L	100		[illegible]	40-140			
Surrogate: 2-Fluorobiphenyl	[illegible]		µg/L	100		[illegible]	40-140			

QUALITY CONTROL

Petroleum Hydrocarbons Analyses - VPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B032088 - MA VPH										
Blank (B032088-BLK1)				Prepared & Analyzed 06/15/11						
Unadjusted C5-C8 Aliphatics	ND	100	µg/L							
C5-C8 Aliphatics	ND	100	µg/L							
Unadjusted C9-C12 Aliphatics	ND	100	µg/L							
C9-C12 Aliphatics	ND	100	µg/L							
C9-C10 Aromatics	ND	100	µg/L							
Benzene	ND	1.0	µg/L							
Ethylbenzene	ND	1.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
Naphthalene	ND	5.0	µg/L							
Toluene	ND	1.0	µg/L							
m+p Xylene	ND	2.0	µg/L							
o-Xylene	ND	1.0	µg/L							
Surrogate: 2,5-Dibromotoluene (FID)	*38.8*		µg/L	40.0		97.0	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	*33.3*		µg/L	40.0		83.2	70-130			
LCS (B032088-BS1)				Prepared & Analyzed 06/15/11						
Benzene	96.5	1.0	µg/L	100		96.5	70-130			
Butylcyclohexane	98.1	1.0	µg/L	100		98.1	70-130			
Decane	114	1.0	µg/L	100		114	70-130			
Ethylbenzene	97.5	1.0	µg/L	100		97.5	70-130			
Methyl tert-Butyl Ether (MTBE)	94.3	1.0	µg/L	100		94.3	70-130			
2-Methylpentane	113	1.0	µg/L	100		113	70-130			
Naphthalene	95.3	5.0	µg/L	100		95.3	70-130			
Nonane	95.9	1.0	µg/L	100		95.9	30-130			
Pentane	106	1.0	µg/L	100		106	70-130			
Toluene	96.9	1.0	µg/L	100		96.9	70-130			
1,2,4-Trimethylbenzene	97.8	1.0	µg/L	100		97.8	70-130			
2,2,4-Trimethylpentane	106	1.0	µg/L	100		106	70-130			
m+p Xylene	195	2.0	µg/L	200		97.7	70-130			
o-Xylene	97.4	1.0	µg/L	100		97.4	70-130			
Surrogate: 2,5-Dibromotoluene (FID)	*39.7*		µg/L	40.0		99.2	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	*34.8*		µg/L	40.0		87.1	70-130			
LCS Dup (B032088-BSD1)				Prepared & Analyzed 06/15/11						
Benzene	99.5	1.0	µg/L	100		99.5	70-130	3.13	25	
Butylcyclohexane	101	1.0	µg/L	100		101	70-130	2.73	25	
Decane	118	1.0	µg/L	100		118	70-130	3.05	25	
Ethylbenzene	101	1.0	µg/L	100		101	70-130	3.83	25	
Methyl tert-Butyl Ether (MTBE)	95.0	1.0	µg/L	100		95.0	70-130	0.719	25	
2-Methylpentane	117	1.0	µg/L	100		117	70-130	3.08	25	
Naphthalene	96.2	5.0	µg/L	100		96.2	70-130	0.987	25	
Nonane	99.9	1.0	µg/L	100		99.9	30-130	4.06	25	
Pentane	87.6	1.0	µg/L	100		87.6	70-130	19.0	25	
Toluene	99.8	1.0	µg/L	100		99.8	70-130	2.98	25	
1,2,4-Trimethylbenzene	102	1.0	µg/L	100		102	70-130	3.96	25	
2,2,4-Trimethylpentane	113	1.0	µg/L	100		113	70-130	6.17	25	
m+p Xylene	203	2.0	µg/L	200		102	70-130	3.89	25	
o-Xylene	101	1.0	µg/L	100		101	70-130	3.78	25	
Surrogate: 2,5-Dibromotoluene (FID)	*41.8*		µg/L	40.0		105	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	*34.2*		µg/L	40.0		85.6	70-130			

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
MADEP-EPH-04-1.1 in Water	
C9-C18 Aliphatics	CT,NC,WA,ME
C19-C36 Aliphatics	CT,NC,WA,ME
Unadjusted C11-C22 Aromatics	CT,NC,WA,ME
C11-C22 Aromatics	CT,NC,WA,ME
Acenaphthene	CT,NC,WA,ME
Acenaphthylene	CT,NC,WA,ME
Anthracene	CT,NC,WA,ME
Benzo(a)anthracene	CT,NC,WA,ME
Benzo(a)pyrene	CT,NC,WA,ME
Benzo(b)fluoranthene	CT,NC,WA,ME
Benzo(g,h,i)perylene	CT,NC,WA,ME
Benzo(k)fluoranthene	CT,NC,WA,ME
Chrysene	CT,NC,WA,ME
Dibenz(a,h)anthracene	CT,NC,WA,ME
Fluoranthene	CT,NC,WA,ME
Fluorene	CT,NC,WA,ME
Indeno(1,2,3-cd)pyrene	CT,NC,WA,ME
2-Methylnaphthalene	CT,NC,WA,ME
Naphthalene	CT,NC,WA,ME
Phenanthrene	CT,NC,WA,ME
Pyrene	CT,NC,WA,ME
MADEP-VPH-04-1.1 in Water	
Unadjusted C5-C8 Aliphatics	CT,NC,WA,ME
C5-C8 Aliphatics	CT,NC,WA,ME
Unadjusted C9-C12 Aliphatics	CT,NC,WA,ME
C9-C12 Aliphatics	CT,NC,WA,ME
C9-C10 Aromatics	CT,NC,WA,ME
Benzene	CT,NC,WA,ME
Ethylbenzene	CT,NC,WA,ME
Methyl tert-Butyl Ether (MTBE)	CT,NC,WA,ME
Naphthalene	CT,NC,WA,ME
Toluene	CT,NC,WA,ME
m+p Xylene	CT,NC,WA,ME
o-Xylene	CT,NC,WA,ME

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	American Industrial Hygiene Association	100033	01/1/2012
MA	Massachusetts DEP	M-MA100	06/30/2011
CT	Connecticut Department of Public Health	PH-0567	09/30/2011
NY	New York State Department of Health	10899 NELAP	04/1/2012
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2012
RI	Rhode Island Department of Health	LAO00112	12/30/2011
NC	North Carolina Div. of Water Quality	652	12/31/2011
NJ	New Jersey DEP	MA007 NELAP	06/30/2012
FL	Florida Department of Health	E871027 NELAP	06/30/2011
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2011
WA	State of Washington Department of Ecology	C2065	02/23/2012
ME	State of Maine	2011028	06/9/2013

con-test ANALYTICAL LABORATORY

Phone 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

CHAIN OF CUSTODY RECORD

11F0405

39 SPRUCE ST, 2ND FLOOR
EAST LONGMEADOW, MA 01028

Page 1 of

Company Name: CLEAN PROPERTIES, INC.
Address: 111 BOSTON POST RD
SUITE 211, SUDBURY, MA 01776
Attention: ROBERT HOUGHTON
Project Location: 515 SOMERVILLE AVE, SOMERVILLE MA
Sampled By: ROBERT HOUGHTON
Proposal Provided? (For Billing purposes) ☐ yes ______ proposal date
State Form Required? ☐ yes ☐ no

Telephone: (617) 866-9986
Project # 0659
Client PO # 0659

DATA DELIVERY (check one):
☐ FAX ☒ EMAIL ☐ WEBSITE CLIENT
Fax #:
Email: rhoughton@cleanproperties.com
Format: ☐ EXCEL ☒ PDF ☐ GIS KEY
☐ OTHER ______

ANALYSIS REQUESTED

									VPH + TARGET VOCs	EPH + TARGET PAHs	
								# of containers	1	1	
								**Preservation	H	H	
								¹Cont Code	V	A	
Field ID	Sample Description	Lab #	Date Sampled Start Date/Time	Date Sampled Stop Date/Time	Composite	Grab	*Matrix Code	Conc. Code			Client Comments:
AE220		-01	6/9/2011 @0510			X	GW	U	X	X	LOW FLOW GROUNDWATER SAMPLE

¹Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

Laboratory Comments

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High, M - Medium, L - Low, C - Clean, U - Unknown

Relinquished by: (signature) R Houghton	Date/Time 6/9/2011
Received by: (signature) Steph Malfa	Date/Time 6-10-11 1210
Relinquished by: (signature) Steph Malfa	Date/Time 6-10-11 1200
Received by: (signature) 20°C	Date/Time 6/10/11 18⁰⁰

Turnaround **
☒ NORMAL 5 DAY
☐ 10-Day
☐ Other ______
RUSH *
☐ *24-Hr ☐ *48 Hr
☐ *72-Hr ☐ *4-Day
* Require lab approval

Detection Limit Requirements
Regulations? MCP CAM
Data Enhancement Project/RCP? ☐ Y ☐ N
Special Requirements or DLs: MCP GW-2/3

*Matrix Code:
GW = groundwater
WW = wastewater
DW = drinking water
A = air
S = soil/solid
SL = sludge
O = other

**Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
O = Other
X = Na hydroxide
T = Na thiosulfate

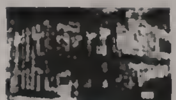
** TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT

AIHA, NELAC & WBE/DBE Certified

---

39 Spruce St.
East Longmeadow, MA 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com

con-test ANALYTICAL LABORATORY



Sample Receipt Checklist

CLIENT NAME: Clean Properties RECEIVED BY: [illegible] DATE: 6/10/11

1) Was the chain(s) of custody relinquished and signed? [✓ Yes] No No CoC Included
2) Does the chain agree with the samples? [✓ Yes] No
If not, explain:
3) Are all the samples in good condition? [✓ Yes] No
If not, explain:
4) How were the samples received:
On Ice ☒ Direct from Sampling ☐ Ambient ☐ In Cooler(s) ☒
Were the samples received in Temperature Compliance of (2-6°C)? [✓ Yes] No N/A
Temperature °C by Temp blank ______ Temperature °C by Temp gun 20°C
5) Are there Dissolved samples for the lab to filter? Yes [✓ No]
Who was notified ______ Date ______ Time ______
6) Are there any RUSH or SHORT HOLDING TIME samples? Yes [✓ No]
Who was notified ______ Date ______ Time ______
7) Location where samples are stored: 19

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature:

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber	1 HCl	8 oz amber/clear jar	
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)		2 oz amber/clear jar	
1 Liter Plastic		Air Cassette	
500 mL Plastic		Hg/Hopcalite Tube	
250 mL plastic		Plastic Bag / Ziploc	
40 mL Vial - type listed below	1	PM 2.5 / PM 10	
Colisure / bacteria bottle		PUF Cartridge	
Dissolved Oxygen bottle		SOC Kit	
Encore		TO-17 Tubes	
Flashpoint bottle		Non-ConTest Container	
Perchlorate Kit		Other glass jar	
Other		Other	

Laboratory Comments

40 mL vials: # HCl 1 # Methanol ______
Bisulfate ______ # DI Water ______
Thiosulfate ______ Unpreserved ______

Time and Date Frozen:

Do all samples have the proper Acid pH: [✓ Yes] No N/A
Do all samples have the proper Base pH: Yes No [✓ N/A]

Doc# 277
Rev. 1 May

MADEP MCP Analytical Method Report Certification Form

Laboratory Name	Con-Test Analytical Laboratory	Project #	11F0405
Project Location	515 Somerville Ave., Somerville, MA	RTN:	

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]

11F0405-01

Matrices: Water

CAM Protocol (check all that below)

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB ( )	MassDEP VPH CAM IV A (X)	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP EPH CAM IV A (X)	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
6010 Metals CAM III A ( )	6020 Metals CAM III D ( )	8082 PCB CAM V A ( )	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )	

Affirmative response to Questions A through F is required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☑ Yes ☐ No¹
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	☑ Yes ☐ No¹
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☑ Yes ☐ No¹
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?	☑ Yes ☐ No¹
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications)	☑ Yes ☐ No¹
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes ☐ No¹
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Questions A through E)?	☑ Yes ☐ No¹

A response to questions G, H and I below is required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☑ Yes ☐ No¹

***Data User Note:** Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350*

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	☑ Yes ☐ No¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☑ Yes ☐ No¹

¹All Negative responses must be addressed in an attached Environmental Laboratory case narrative

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature ______ Position: Laboratory Manager
Printed Name: Daren J. Damboragian Date: 06.17.11

2/25/2010

MiCROVISION
LABORATORIES INC

Action Environmental
184 Riverview Ave.
1st Floor
Waltham, MA 02453
Attn: Robert Houghton

Project#: 3120
Project Name: World 115 Nominee Trust
Job #: 3227

Dear Robert:

This report covers the methods and findings of the Coal/Coal Ash analysis that MicroVision Laboratories, Inc. conducted on the two (2) soil samples from your project# 3120, which you submitted for this testing. The purpose of this analysis was to detect and document any coal, coal ash or wood ash that may be present in the submitted soil samples by use of a combination of microscopy tests including SEM/EDS, PLM, and macroscopic inspection.

Methods:

The samples were dried and examined by eye and under the stereomicroscope for any suspect dark components to the soil. Dark suspect particles were separated from the soil samples and prepared for examination by Polarized Light Microscopy (PLM) and Scanning Electron Microscopy with Energy Dispersive X-Ray Spectroscopy (SEM/EDS).

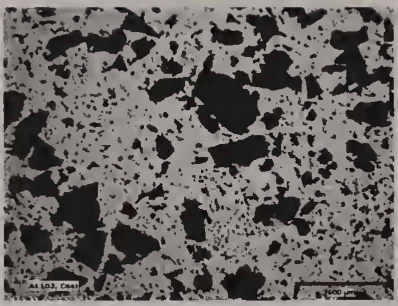
For the PLM examination the suspect particle types detected in the samples, were ground in a mortar and pestle, mounted on glass slides in immersion oil (n=1.515) and covered with glass cover slips. These samples were then examined at various magnifications and digital images were taken.

For the SEM examination the suspect particle types were mounted on an aluminum analysis stub with double sided adhesive tape, coated with evaporated graphite and examined under the SEM by EDS to obtain elemental data in the form of EDS spectra. Digital images were taken of the samples at various magnifications with the SEM.

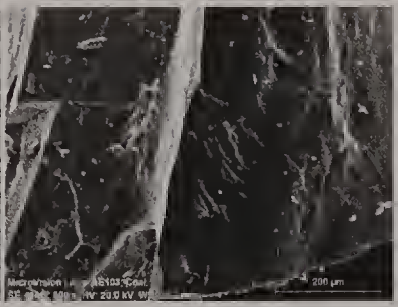
Findings:

Sample AE103 Urban Fill

The soil in this sample was a yellow-brown color and contained two (2) suspect particle types. Particle type 1 consisted of eighteen (18) shiny, black grains approximately 1mm-4mm in diameter. The PLM examination indicated this particle type to be consistent with coal. The PLM and SEM images of this particle type show the angular edges and typical conchoidal fractures found in coal.



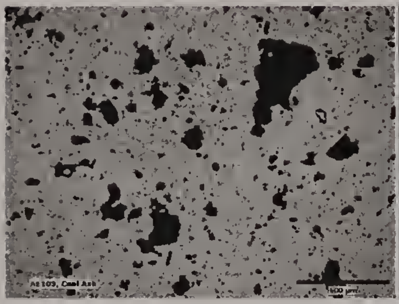
Sample: AE103 Urban Fill, Coal
PLM Image



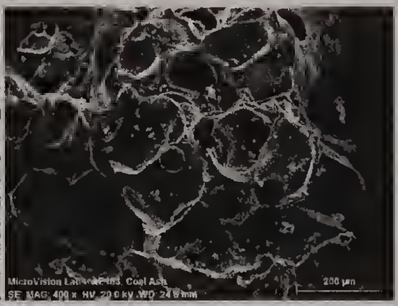
Sample: AE103 Urban Fill, Coal
SEM Image

The EDS analysis confirmed that this particle type is coal. The EDS spectrum for this particle shows a strong peak concentration of carbon, with lower peak concentrations of oxygen, and sulfur. See Appendix A for the average composition EDS spectra of this particle type.

Particle type 2 consisted of over thirty (30+) dark porous grains approximately 2mm-5mm in diameter. The PLM examination indicated this particle type to be consistent with coal ash. The PLM and SEM images show the irregular surface with spherical gas voids that formed during combustion of the coal ash.



Sample: AE103 Urban Fill, Coal Ash
PLM Image

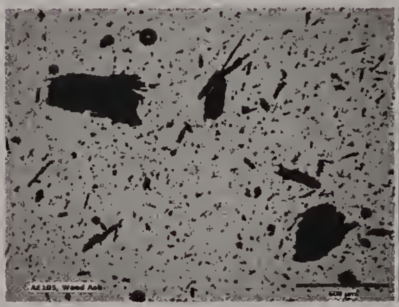


Sample: AE103 Urban Fill, Coal Ash
SEM Image

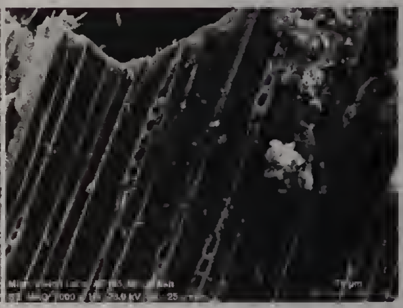
The EDS spectrum for this particle shows strong to moderate peak concentrations of carbon, oxygen, aluminum, and silicon with lower peak concentrations of sulfur, iron and copper. See Appendix B for the average composition EDS spectra of the coal ash detected in this sample.

Sample AE105 Urban Fill

The soil in this sample was a light brown color and contained one (1) suspect particle type. This particle type consisted of seven (7) friable, black grains approximately 1mm-2mm in length. The PLM examination indicated this particle type to be consistent with wood ash. The PLM and SEM photos show the cellular structure typical of wood still present in these grains.



Sample: AE105 Urban Fill, Wood Ash
PLM Image



Sample: AE105 Urban Fill, Wood Ash
SEM Image

The EDS spectrum for this particle type shows peak concentrations of carbon, oxygen, and calcium. See Appendix C for the average composition EDS spectra of the wood ash detected in this sample.

Results Summary Table:

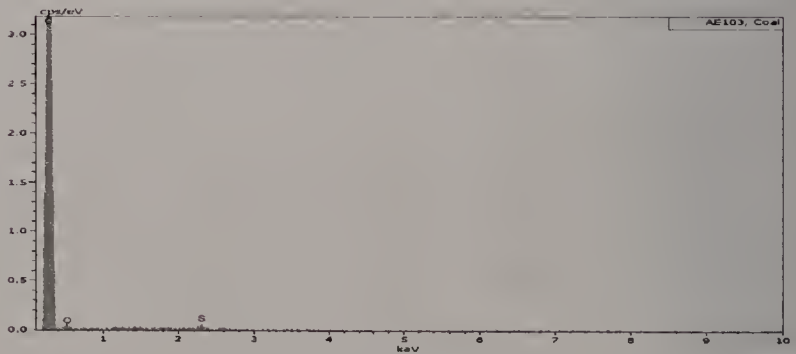
Sample Name	Material Detected
AE103 Urban Fill	**Coal (moderate), Coal Ash (heavy)**
AE105 Urban Fill	**Wood Ash (light)**

The concentrations of the particle types detected in these samples are listed in parenthesis in the table above and are based on the number of particles found and the relative difficultly in finding them. The concentration information is listed for informational purposes only and has no bearing on exemption status. Please let me know if you have any questions about this analysis or if there is anything else I can do for you.

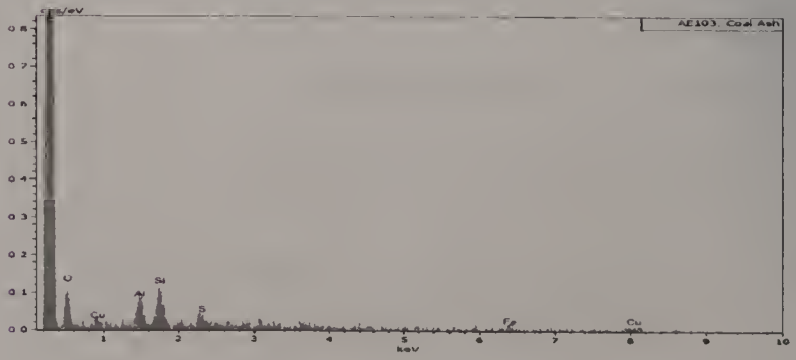
Sincerely,

Denise Weidler
Microscopist

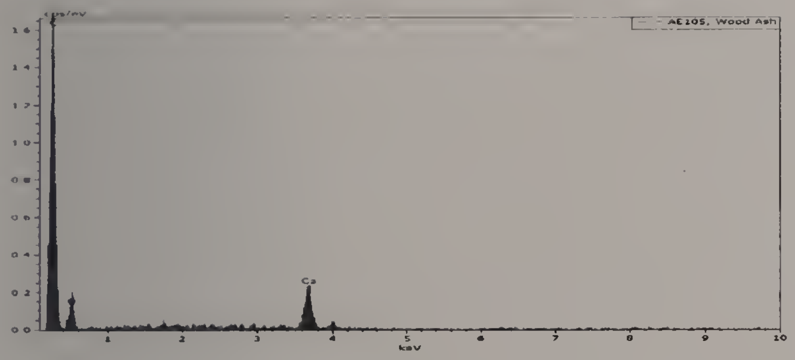
John H. Knowles
John H. Knowles
President



Appendix A, EDS Spectrum
Sample: AE103 Urban Fill, Coal



Appendix B, EDS Spectrum
Sample: AE103 Urban Fill, Coal Ash



Appendix C, EDS Spectrum
Sample: AE105 Urban Fill, Wood Ash